Service Manual

Pioneer

TOYOTA

ORDER NO.
CRT2528

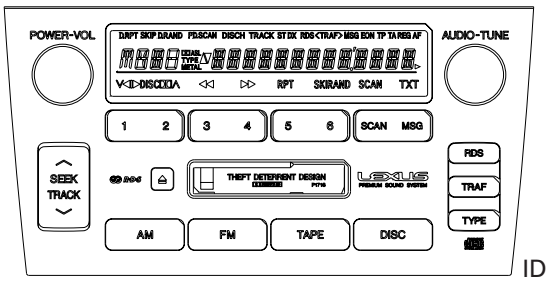
LEXUS GS430
AUDIO SYSTEM
HEAD UNIT

VEHICLE	DESTINATION	PRODUCED AFTER	TOYOTA PART No.	ID No.	PIONEER MODEL No.
LEXUS GS430	U.S.A., CANADA	August 2000	86120-3A521	P1718	KEX-M8406ZT/UC
LEXUS GS430	U.S.A., CANADA	August 2000	86120-3A521	P1718	KEX-M8406ZT-91/UC
LEXUS GS430	U.S.A., CANADA	August 2000	86120-3A750	P1723	KEX-M9406ZT/UC
LEXUS GS430	U.S.A., CANADA	August 2000	86120-3A750	P1723	KEX-M9406ZT-91/UC

Manufactured for TOYOTA
by PIONEER CORPORATION

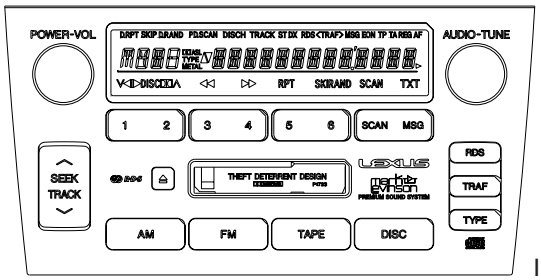
PUB. NO. CRT2528

KEX-M8406ZT/UC



ID No.P1718

KEX-M9406ZT/UC



ID No.P1723

● This service manual should be used together with the following manual(s):

Model	Order No.	Mech. Module	Remarks
CX-631	CRT1640	2L	Cassette Mech. Module:Mech.Description

● Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

● These models do not provide the test mode for CD changers.

● KEX-M8406ZT/UC and KEX-M9406ZT/UC have adopted AVC-LAN.

● Supplementary model is identical to the original except for the addition of following items.

Description	Part No.	
	KEX-M8406ZT-91/UC	KEX-M9406ZT-91/UC
Polyethylene Bag	CEG1026	CEG1026
Carton	CHA2025	CHA2025
Contain Box	CHL4166	CHL4167
Protector	CHP2331	CHP2331

CONTENTS

1. SAFETY INFORMATION 3
2. EXPLODED VIEWS AND PARTS LIST 4
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM 8
4. PCB CONNECTION DIAGRAM 22
5. ELECTRICAL PARTS LIST 34
6. ADJUSTMENT.....42
7. GENERAL INFORMATION 46
7.1 DIAGNOSIS.....46
7.1.1 DIAGNOSIS MODE 46
7.1.2 DISASSEMBLY 50
7.1.3 CONNECTOR FUNCTION DESCRIPTION ..51
7.1.4 TROUBLESHOOTING.....52
7.2 PARTS.....53
7.2.1 IC 53
7.2.2 DISPLAY.....56
7.3 EXPLANATION.....57
7.3.1 SYSTEM BLOCK DIAGRAM 57
7.3.2 OPERATIONAL FLOW CHART 58
8. OPERATIONS AND SPECIFICATIONS.....59

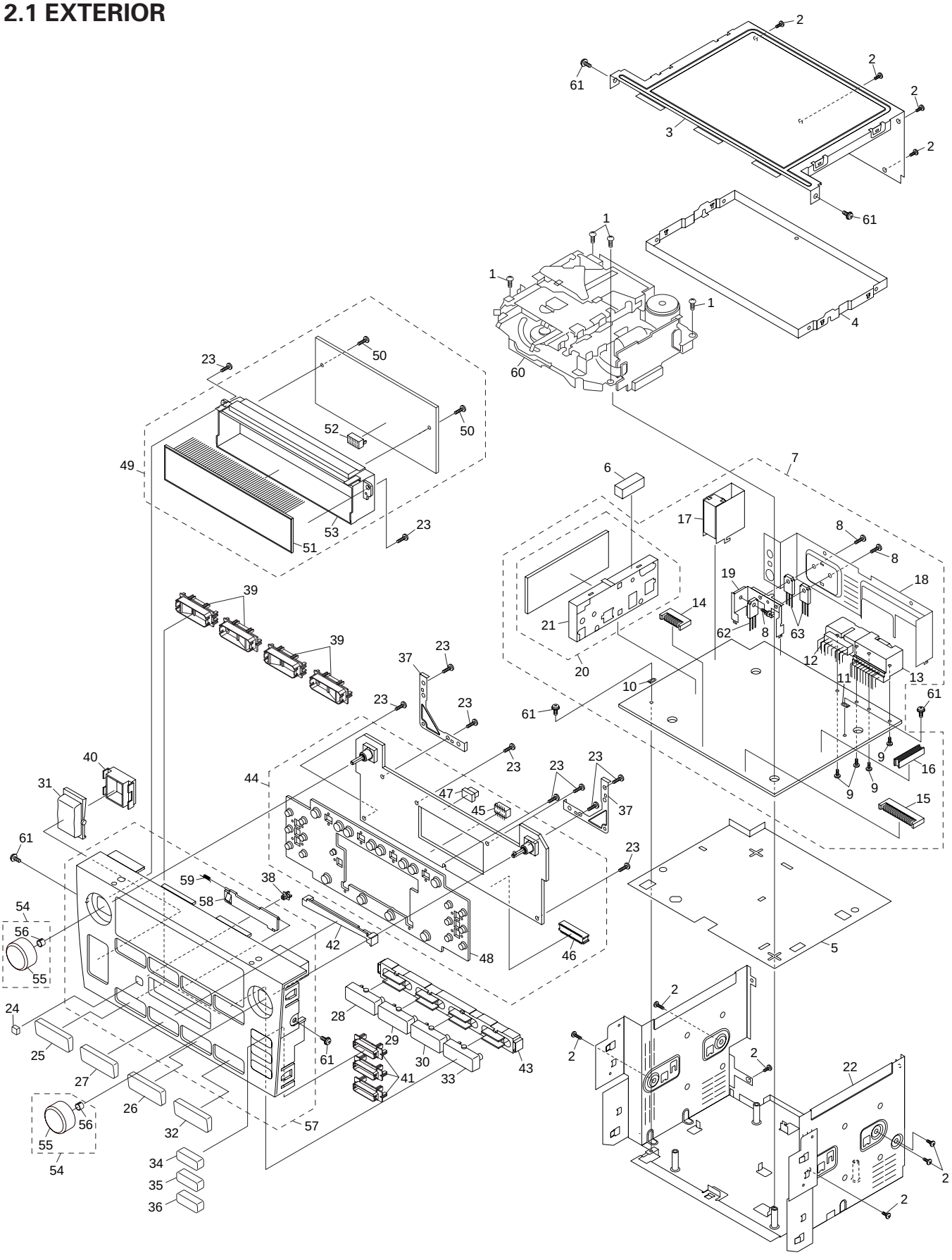
1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

2. EXPLODED VIEWS AND PARTS LIST

2.1 EXTERIOR



NOTE:

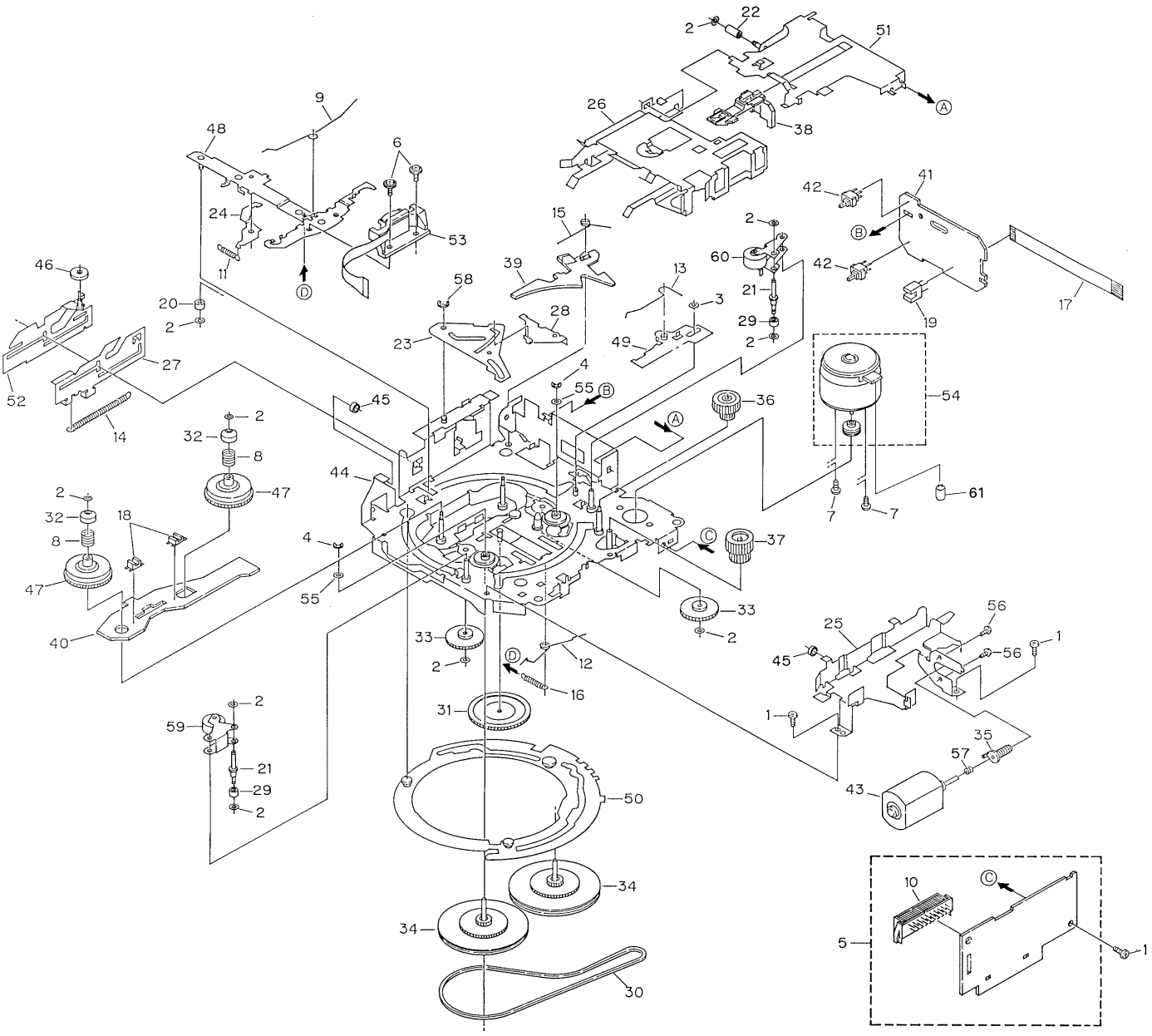
● Parts marked by "*" are generally unavailable because they are not in our Master Spare Parts List.

● Screws adjacent to ∇ mark on the product are used for disassembly.

● EXTERIOR SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	Screw	BMZ26P050FMC
	2	Screw	BMZ30P050FMC
	3	Case	CNB2550
	4	Holder	CNC8972
	5	Insulator	CNM6849
	6	Cushion	CNM6935
	7	Main Unit	CWM7090
	8	Screw	BMZ30P080FMC
	9	Screw	BPZ30P060FSN
	10	Terminal(CN202)	CKF1059
	11	Terminal(CN303)	CKF1059
	12	Connector(CN302)	CKM1065
	13	Connector(CN301)	CKM1322
	14	Plug(CN652)	CKS3535
	15	Plug(CN651)	CKS3542
	16	Connector(CN701)	CKS3568
	17	Antenna Jack(CN201)	CKX1024
	18	Holder	CNC8711
	19	Holder	CNC8712
	20	FM/AM Tuner Unit	CWE1543
	21	Holder	CNC6774
	22	Chassis Unit	CXB5288
	23	Screw	BPZ26P100FMC
	24	Button(EJECT)	CAC4839
	25	Button(AM)	CAC4841
	26	Button(TAPE)	CAC4843
	27	Button(FM)	CAC4848
	28	Button(1,2)	CAC5274
	29	Button(3,4)	CAC5275
	30	Button(5,6)	CAC5276
	31	Button(SEEK,TRACK)	CAC6543
	32	Button(DISC)	CAC6544
	33	Button(SCAN,MSG)	CAC6545
	34	Button(RDS)	CAC6546
	35	Button(TRAF)	CAC6547
	36	Button(TYPE)	CAC6548
	37	Holder	CNC7052
	38	Holder	CNV4738
	39	Holder	CNV4739
	40	Holder	CNV4740
	41	Holder	CNV4741
	42	Lighting Conductor	CNV4883
	43	Holder	CNV5337
	44	Keyboard Unit	CWM7101
	45	Socket(CN902)	CKS3548
	46	Socket(CN901)	CKS3555
	47	Socket(CN903)	CKS3972
	48	Rubber	CNV4743
	49	LCD Unit	CWM7104
	50	Screw	BPZ26P100FMC
	51	LCD	CAW1594
	52	Plug(CN951)	CKS3574
	53	Holder	CNV6140
	54	Knob Assy	CXA9518
*	55	Knob	CAA1401
	56	Spring	CBL-108
	57	Grille Unit(M8406ZT)	CXB5287
		Grille Unit(M9406ZT)	CXB5582
	58	Door(M8406ZT)	CAT2127
		Door(M9406ZT)	CAT2140
	59	Spring	CBH1371
	60	Cassette Mechanism Module	EXK3885
	61	Screw	IMS26P050FMC
	62	Transistor(Q331)	2SB1185
	63	Transistor(Q521,522)	2SB1185

2.2 CASSETTE MECHANISM MODULE



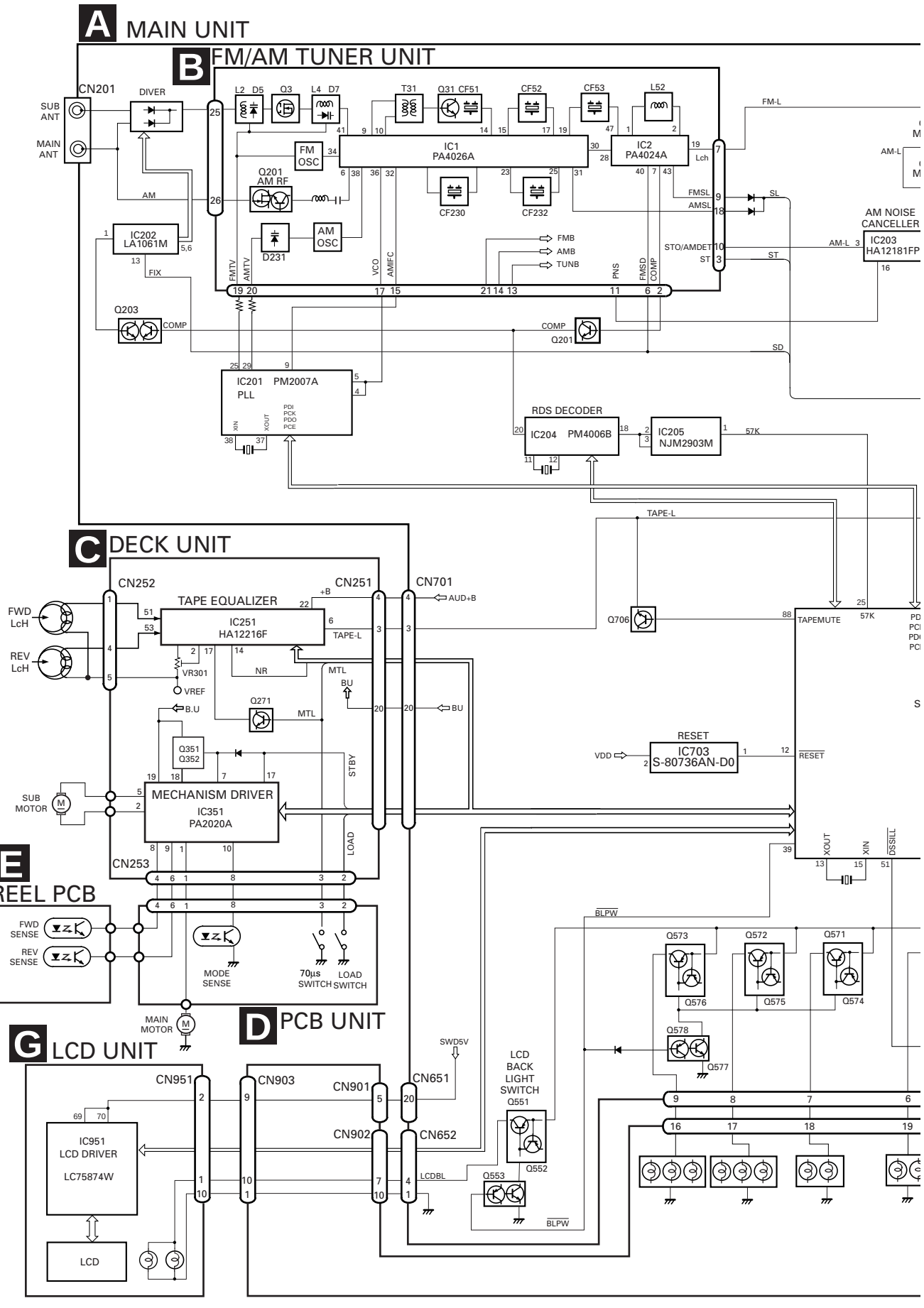
● CASSETTE MECHANISM MODULE SECTION PARTS LIST

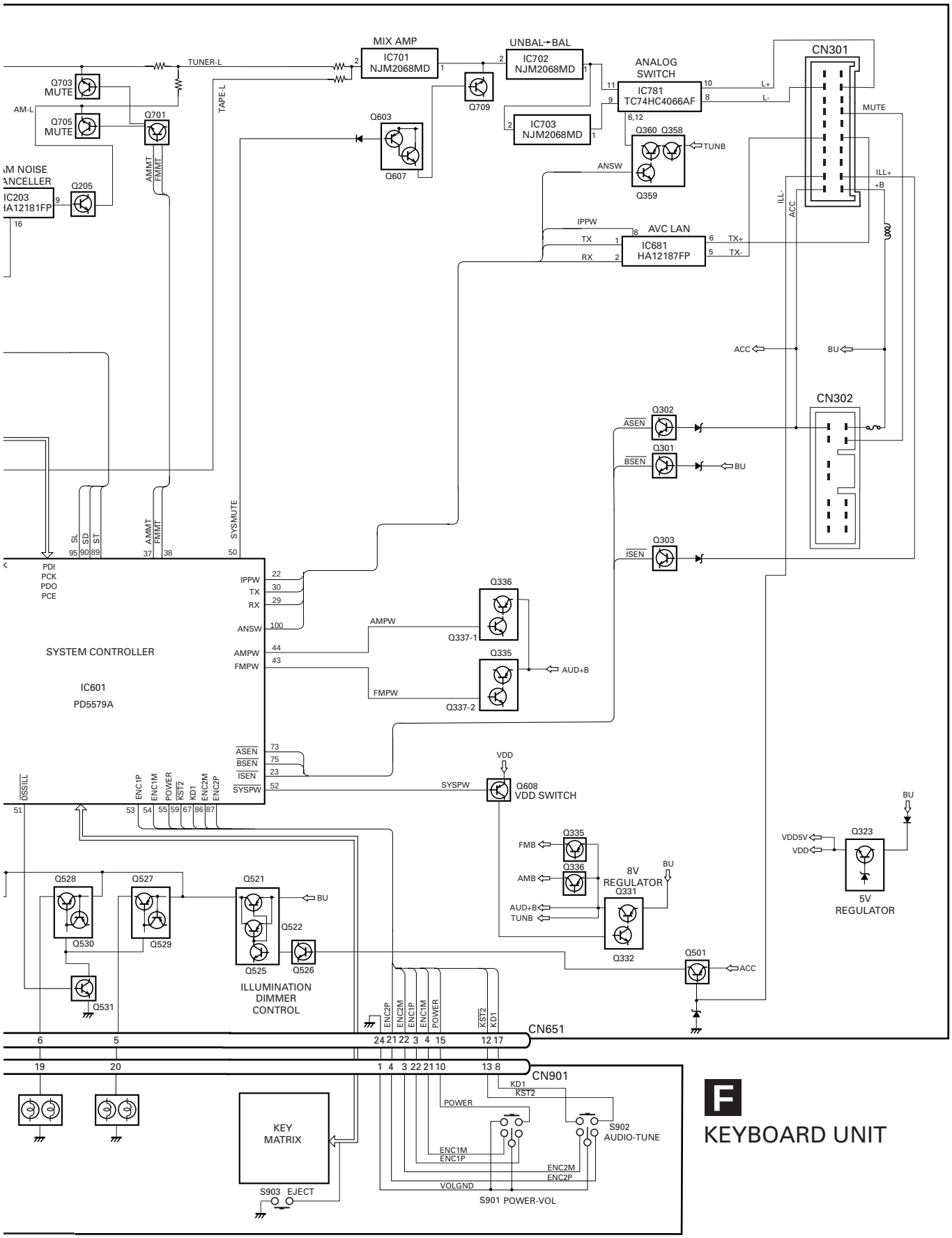
Mark No.	Description	Part No.
1	Screw	BSZ20P040FMC
2	Washer	CBF1037
3	Washer	CBF1038
4	Washer	CBG1003
5	Deck Unit	EWM1027
6	Screw(M2x5)	EBA1028
7	Screw(M2x2.5)	EBA1037
8	Spring	EBH1531
9	Spring	EBH1589
10	Connector(CN251)	CKS3540
11	Spring	EBH1515
12	Spring	EBH1587
13	Spring	EBH1517
14	Spring	EBH1518
15	Spring	EBH1519
16	Spring	EBH1537
17	Cord	EDD1027
18	Photo-interrupter(EGN2,3)	EGN1006
19	Photo-interrupter(EGN1)	EGN1005
20	Roller	ENR1031
21	Shaft	ELA1362
22	Roller	ELA1348
23	Arm	ENC1490
24	Arm	ENC1397
25	Guide	ENC1519
26	Holder	ENC1516
27	Lever	ENC1448
28	Arm	ENC1488
29	Roller	ENR1023
30	Belt	ENT1027

Mark No.	Description	Part No.
31	Gear	ENV1347
32	Collar	ENV1508
33	Gear	ENV1350
34	Flywheel	ENV1500
35	Worm Gear	ENV1439
36	Worm Wheel	ENV1440
37	Gear	ENR1037
38	Lever	ENV1533
39	Arm	ENV1525
40	Gathering PCB	ENX1037
41	Gathering PCB	ENX1060
42	Switch(S1)(S2)	ESG1004
43	Motor Unit(M2)(SUB)	EXA1382
44	Chassis Unit	EXA1559
45	Tube	ENM1039
46	Roller	ENR1027
47	Reel Unit	EXA1560
48	Head Base Unit	EXA1434
49	Lever Unit	EXA1578
50	Gear Unit	EXA1545
51	Frame Unit	EXA1476
52	Lever Unit	EXA1439
53	Head Assy(HD1)	EXA1594
54	Motor Unit(M1)(MAIN)	EXA1499
55	Washer	HBF-179
56	Screw	JGZ20P025FNI
57	Spring	EBH1545
58	Washer	YE20FUC
59	Pinch Roller Unit	EXA1533
60	Pinch Roller Unit	EXA1532
61	Capacitor(C1)	CEAL4R7M35

3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 BLOCK DIAGRAM



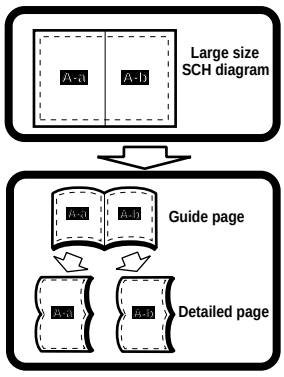


F

KEYBOARD UNIT

3.2 MAIN UNIT(GUIDE PAGE)

Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".



A-a

A MAIN UNIT

B FM/AM TUNER UNIT FM:-26dBs(400Hz,30%) AM:-16dBs(400Hz,30%)

F CN901

FM DIVERSITY

PLL

RBDS DECODER

AM PNS

TAPE:- 8dBs

CASSETTE MECHANISM MODULE

C D E

TUNER MUTE

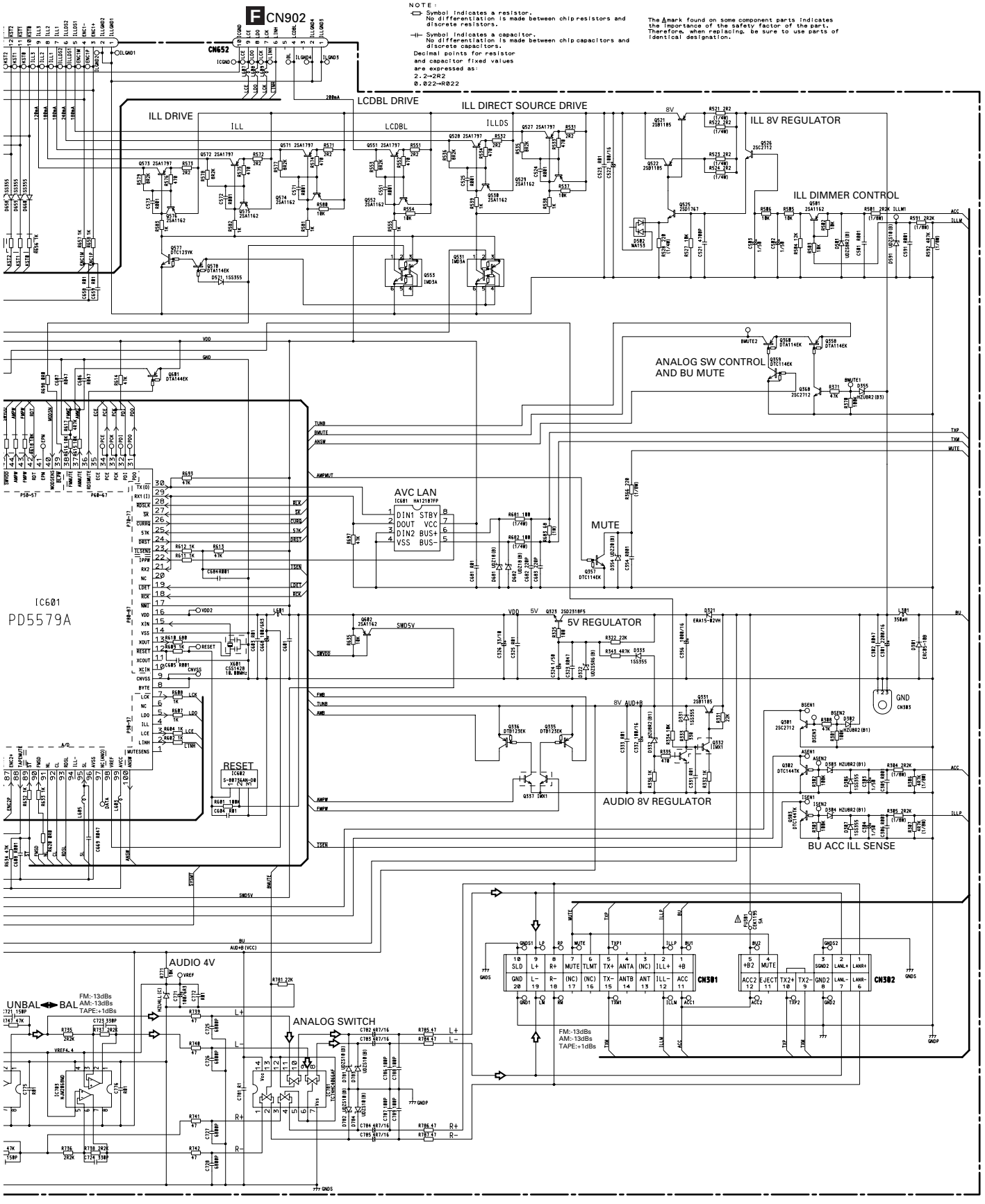
TAPE MUTE

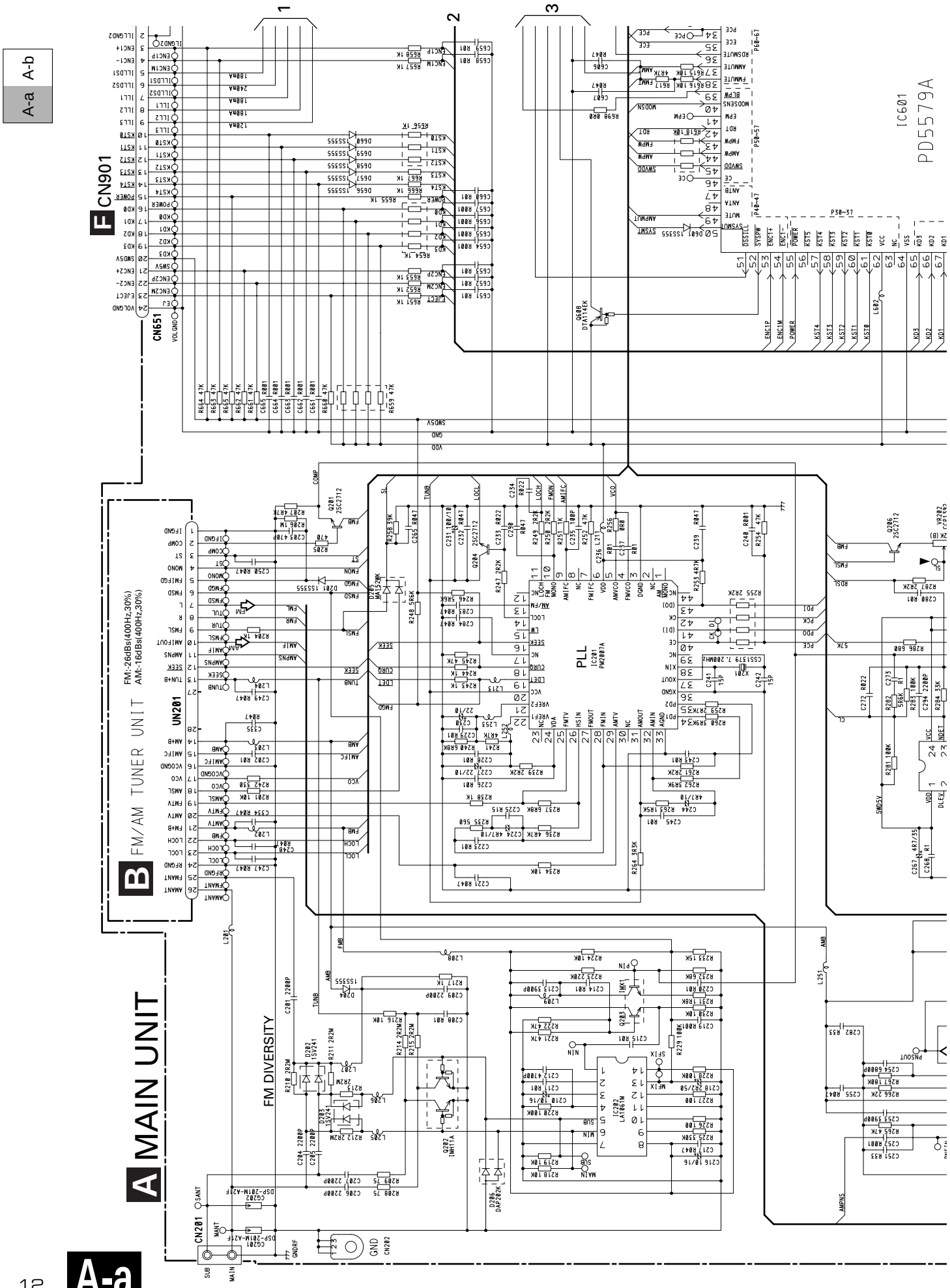
MIX AMP

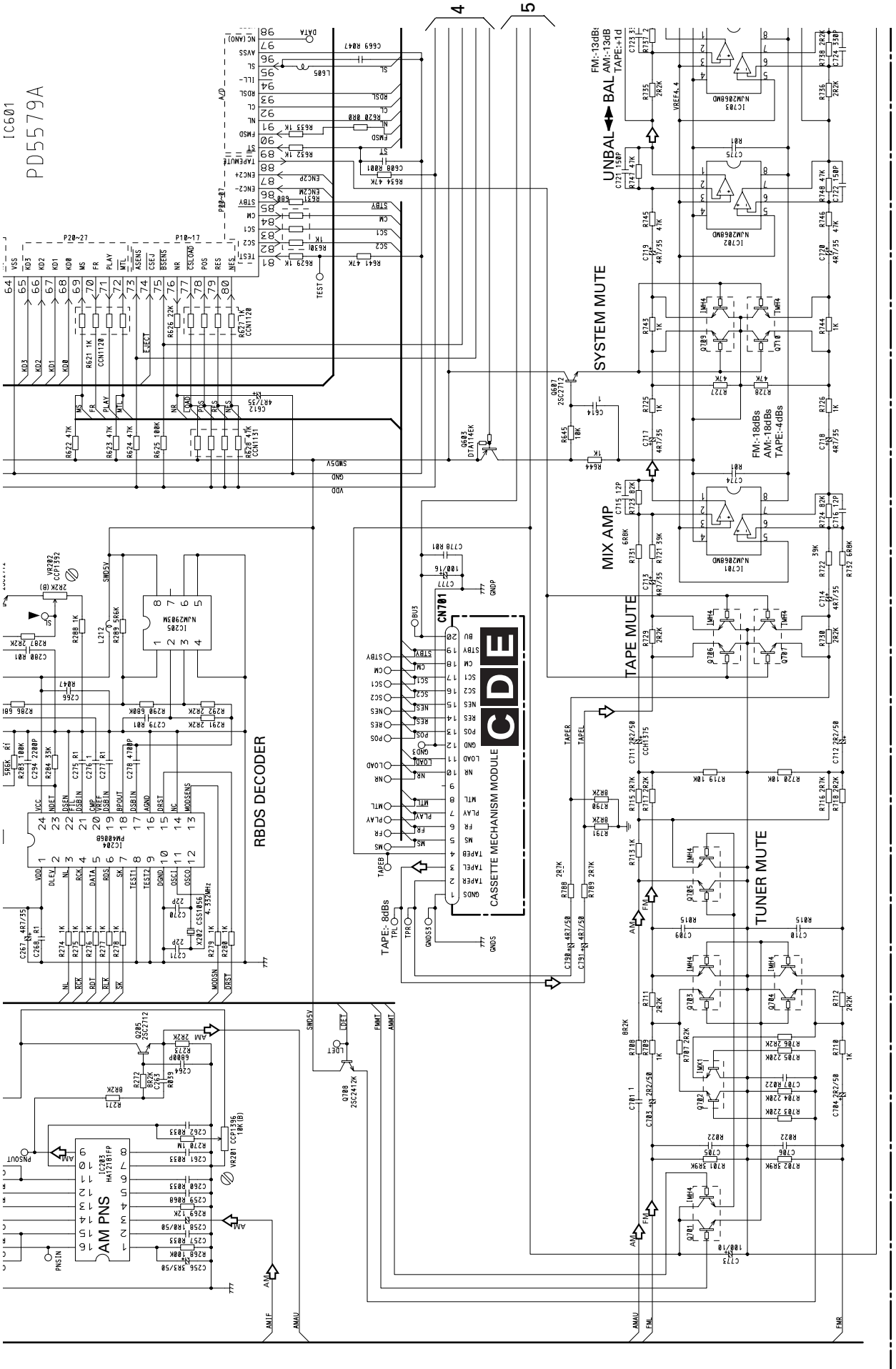
SYSTEM MUTE

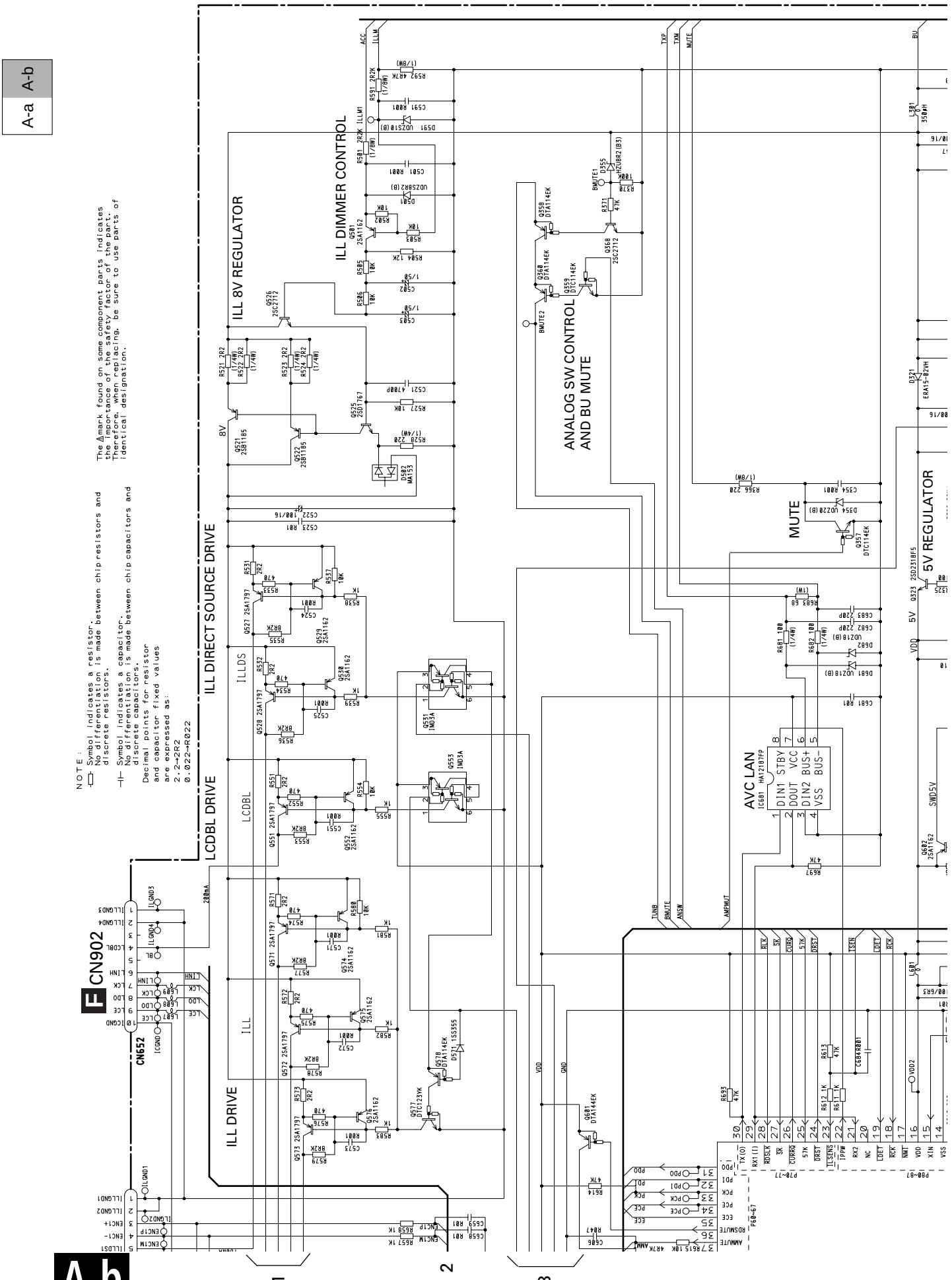
FM:-18dBs
AM:-18dBs
TAPE:-4dBs

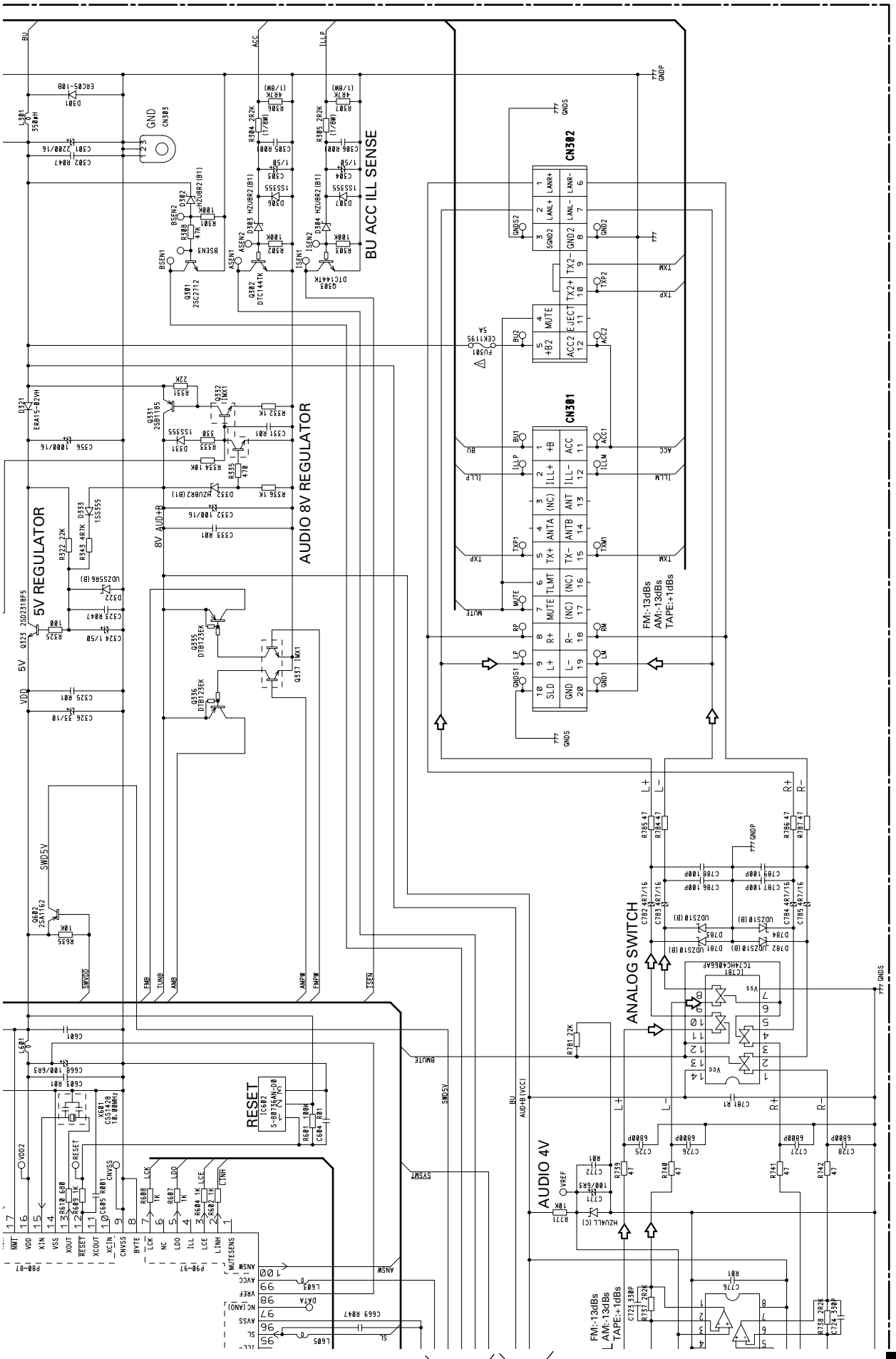
A-b


F CN902
CN652
NOTE :
Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.
Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.
Decimal points for resistor and capacitor fixed values are expressed as:
2.2→2R2
0.022→R022
The △ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
ILL DRIVE
LCDBL DRIVE
ILL DIRECT SOURCE DRIVE
ILL 8V REGULATOR
ILL DIMMER CONTROL
ANALOG SW CONTROL AND BU MUTE
AVC LAN
IC601
PD5579A
MUTE
5V REGULATOR
AUDIO 8V REGULATOR
BU ACC ILL SENSE
RESET
AUDIO 4V
UNBAL BAL
FM:-13dB
AM:-13dB
TAPE:+1dB
ANALOG SWITCH
CN301
CN302

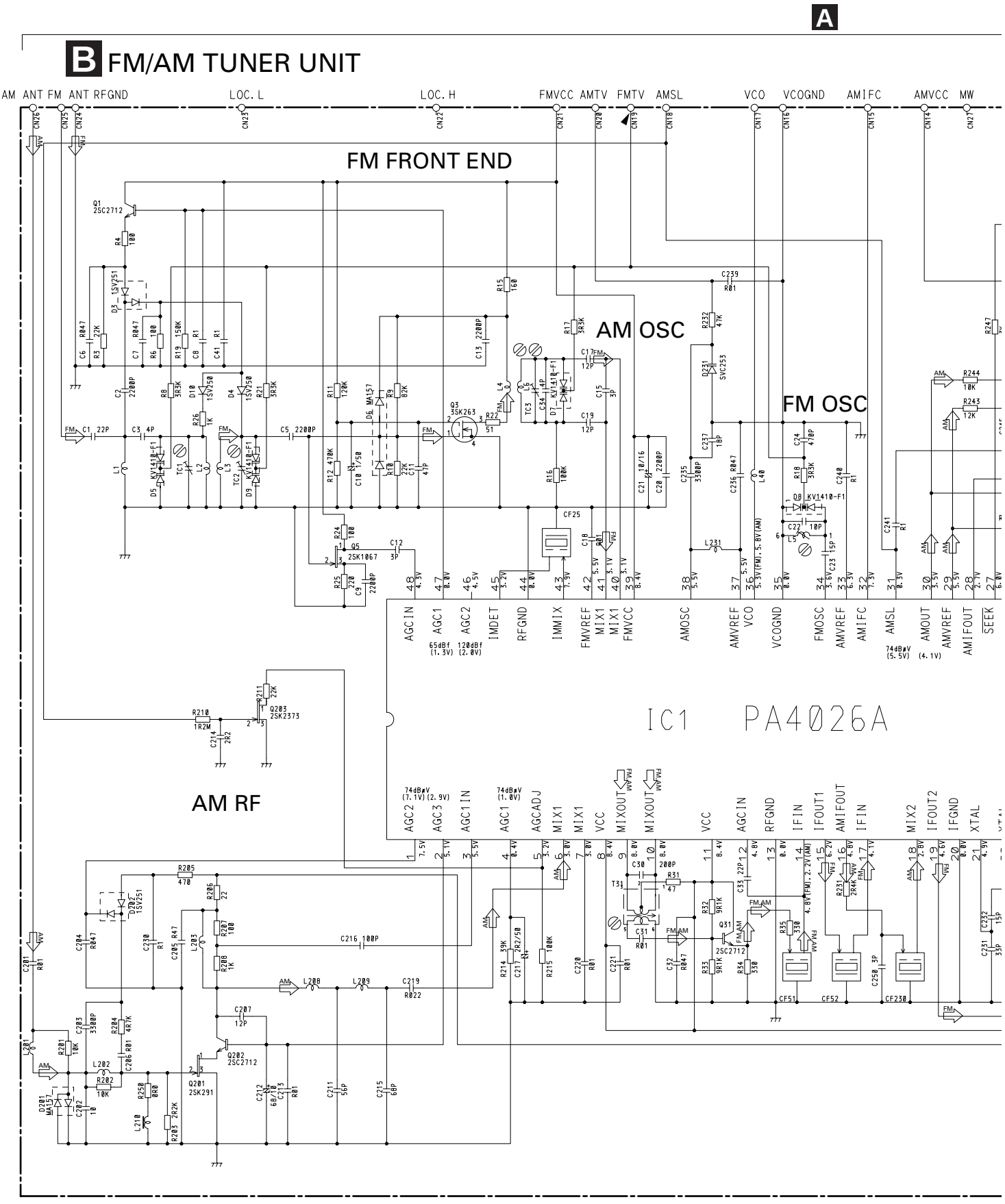

A-b
A-a
F CN901
CN651
IC601
PD5579A
B FM/AM TUNER UNIT
UN201
PLL
IC201
PM2007A
A MAIN UNIT
FM DIVERSITY
CN201
GND
CN202
A-a

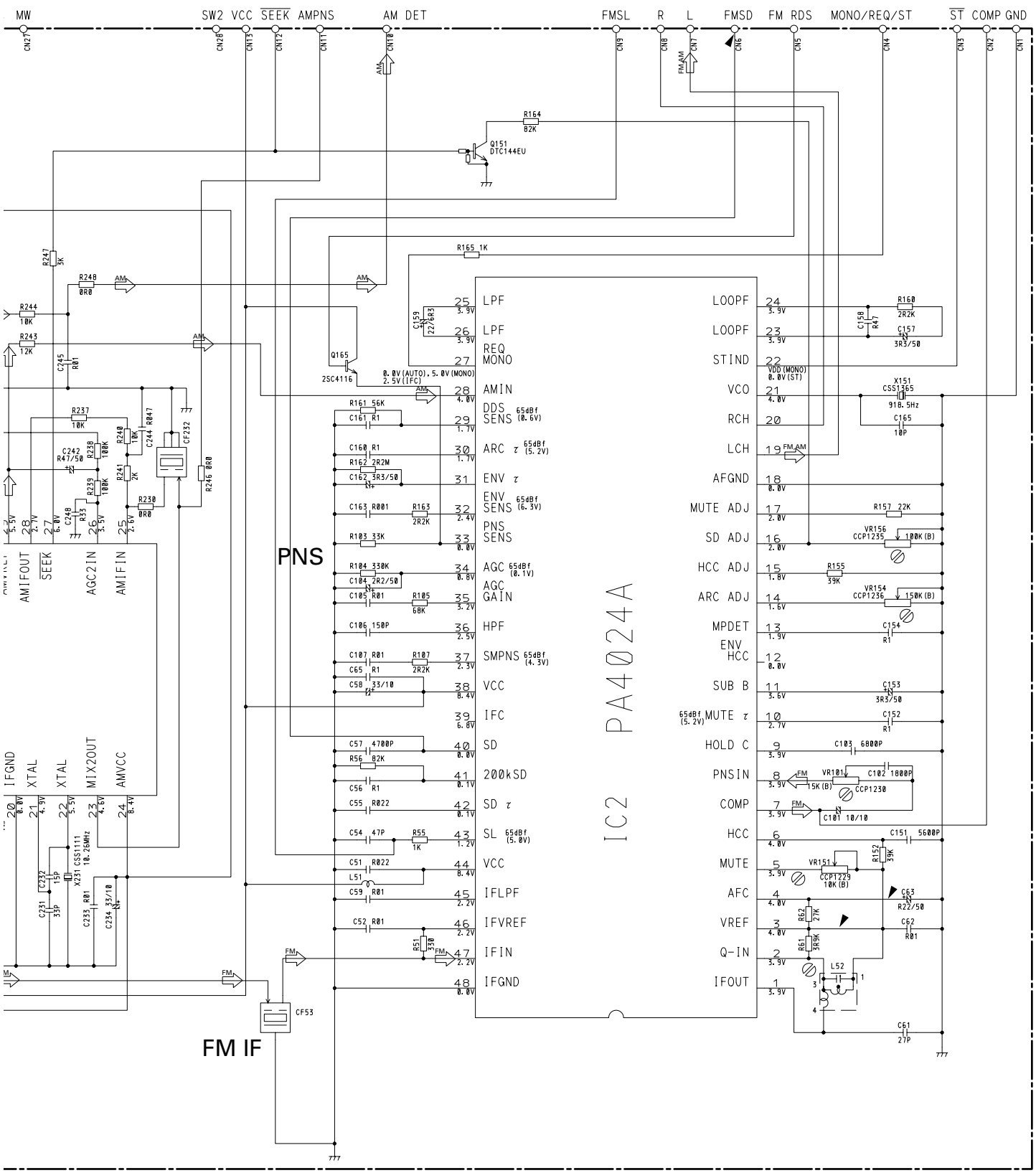

IC601
PD5579A
SYSTEM MUTE
MIX AMP
TAPE MUTE
TUNER MUTE
UNBAL ◆► BAL
FM:-13dB
AM:-13dB
TAPE:+1d
FM:-18dBs
AM:-18dBs
TAPE:-4dBs
CASSETTE MECHANISM MODULE
CN701
RBDS DECODER
AM PNS
TAPE:- 8dBs
SWD5V
VDD
GND
EJECT
TEST
A-b
A-a


A-b
A-a
ILL 8V REGULATOR
ILL DIMMER CONTROL
ILL DIRECT SOURCE DRIVE
LCDBL DRIVE
ILL DRIVE
ANALOG SW CONTROL AND BU MUTE
MUTE
5V REGULATOR
AVC LAN
IC681 HA12107FP
DIN1 STBY
DOUT VCC
DIN2 BUS+
VSS BUS-
CN902
CN652
The ⚠ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
NOTE:
Symbol indicates a resistor. No differentiation is made between chip resistors and discrete resistors.
Symbol indicates a capacitor. No differentiation is made between chip capacitors and discrete capacitors.
Decimal points for resistor and capacitor fixed values are expressed as:
2.2→2R2
0.022→R022

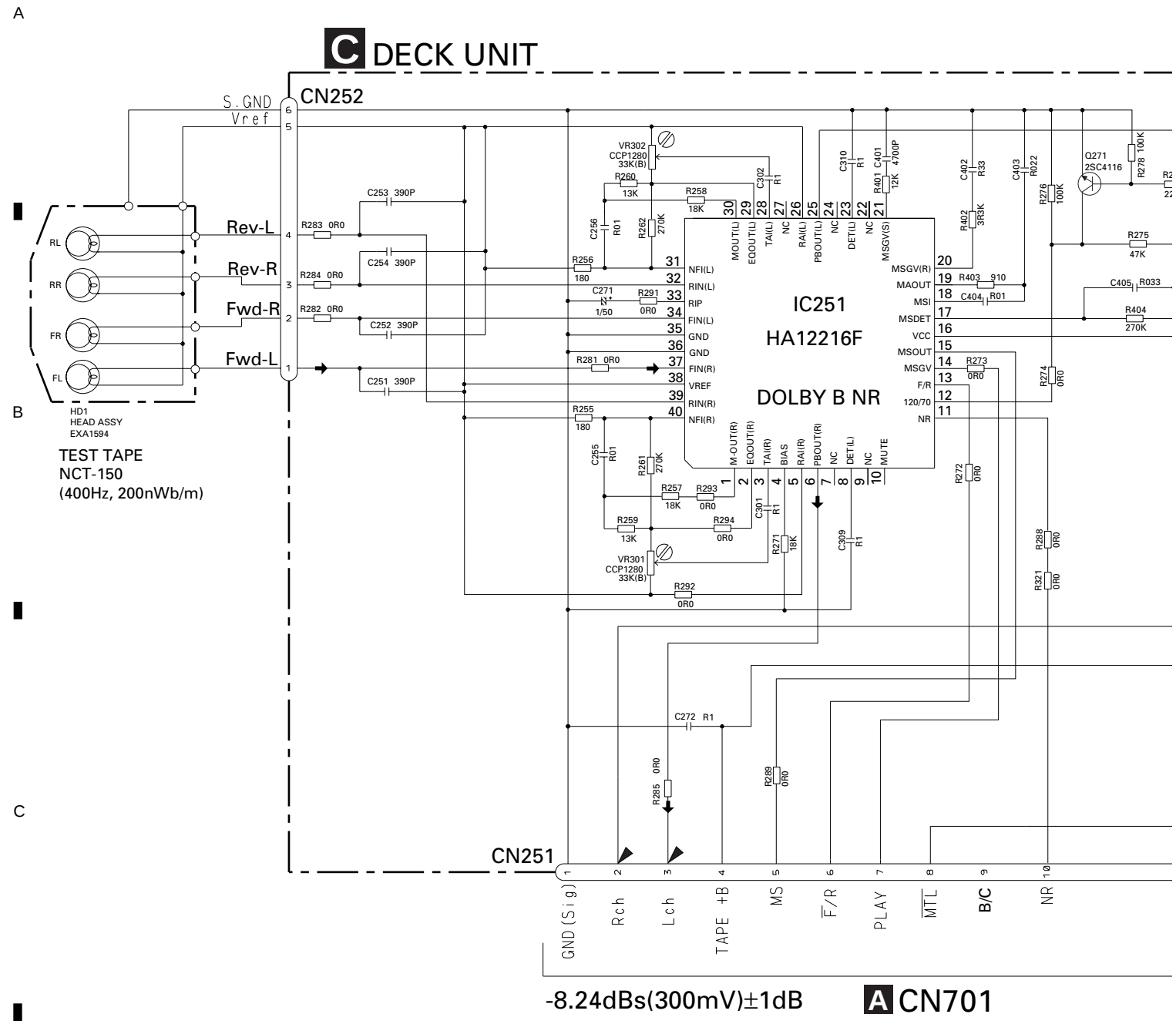

BU ACC ILL SENSE
AUDIO 8V REGULATOR
5V REGULATOR
CN302
CN301
FM:-13dBs
AM:-13dBs
TAPE:+1dBs
ANALOG SWITCH
AUDIO 4V
RESET

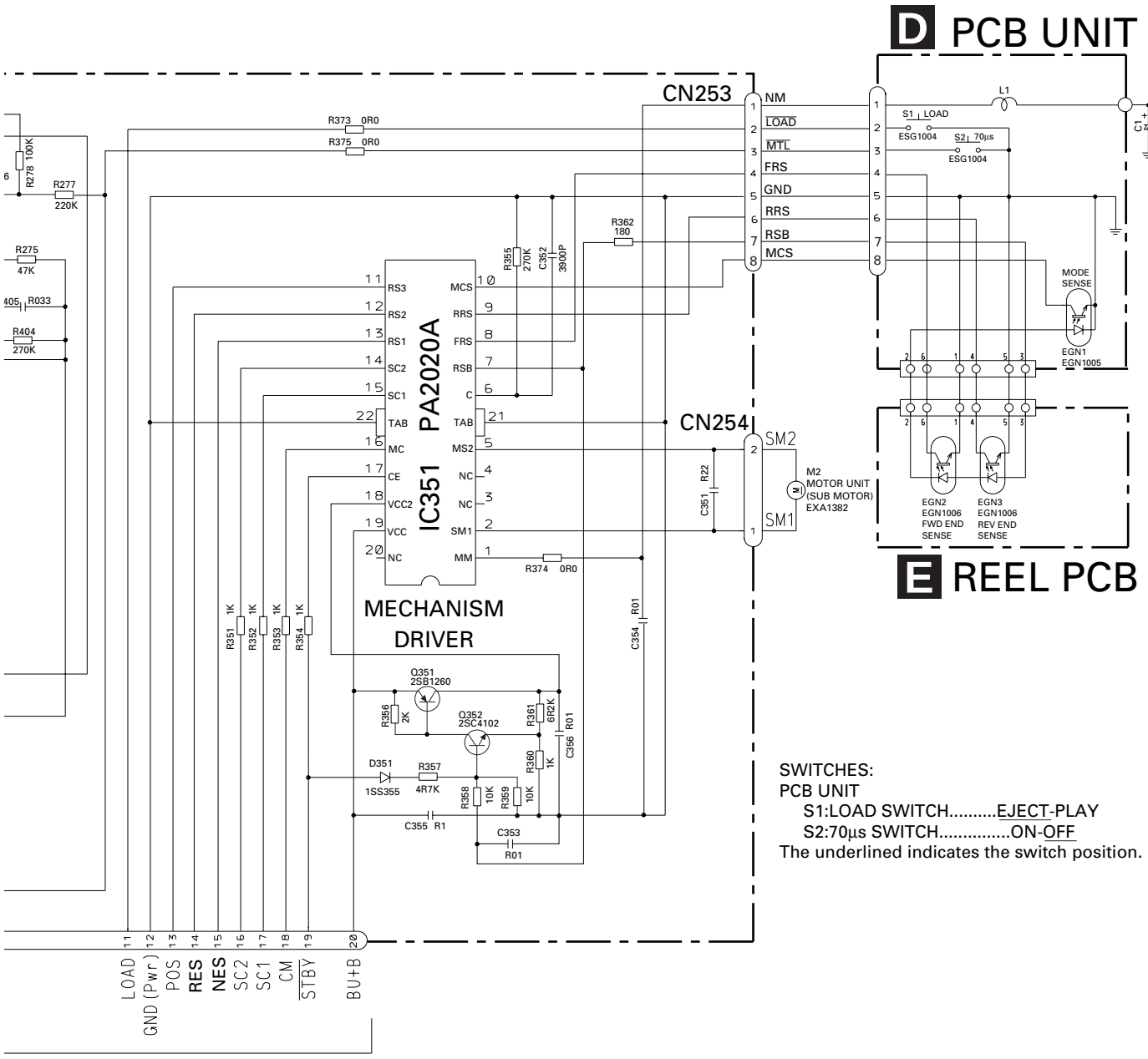
3.3 FM/AM TUNER UNIT


A
B FM/AM TUNER UNIT
AM ANT FM ANT RFGND
LOC. L
LOC. H
FMVCC AMTV FMTV AMSL
VCO VCOGND AMIFC
AMVCC MW
FM FRONT END
AM OSC
FM OSC
AM RF
IC1 PA4026A
AGCIN AGC1 AGC2 IMDET RFGND IMMIX FMVREF MIX1 MIX1 FMVCC AMOSC AMVREF VCO VCOGND FMOSC AMVREF AMIFC AMSL AMOUT AMVREF AMIFOUT SEEK
AGC2 AGC3 AGC1IN AGC1 AGCADJ MIX1 MIX1 VCC MIXOUT MIXOUT VCC AGCIN RFGND IFIN IFOUT1 AMIFOUT IFIN MIX2 IFOUT2 IFGND XTAL


MW
SW2 VCC SEEK AMPNS
AM DET
FMSL
R L
FMSD
FM RDS
MONO/REQ/ST
ST COMP GND
IC2 PA4024A
LPF
LPF
REQ MONO
AMIN
DDS SENS
ARC τ
ENV τ
ENV SENS
PNS SENS
AGC GAIN
HPF
SMPNS
VCC
IFC
SD
200kSD
SD τ
SL
VCC
IFLPF
IFVREF
IFIN
IFGND
LOOPF
LOOPF
STIND
VCO
RCH
LCH
AFGND
MUTE ADJ
SD ADJ
HCC ADJ
ARC ADJ
MPDET
ENV HCC
SUB B
MUTE τ
HOLD C
PNSIN
COMP
HCC
MUTE
AFC
VREF
Q-IN
IFOUT
PNS
FM IF
AMIFOUT
SEEK
AGC2IN
AMIFIN
IFGND
XTAL
XTAL
MIX2OUT
AMVCC
Q151 DTC144EU
Q165 2SC4116
CF232
CF53
X231 CSS1111 10.25MHz
X151 CSS1365 918.5Hz

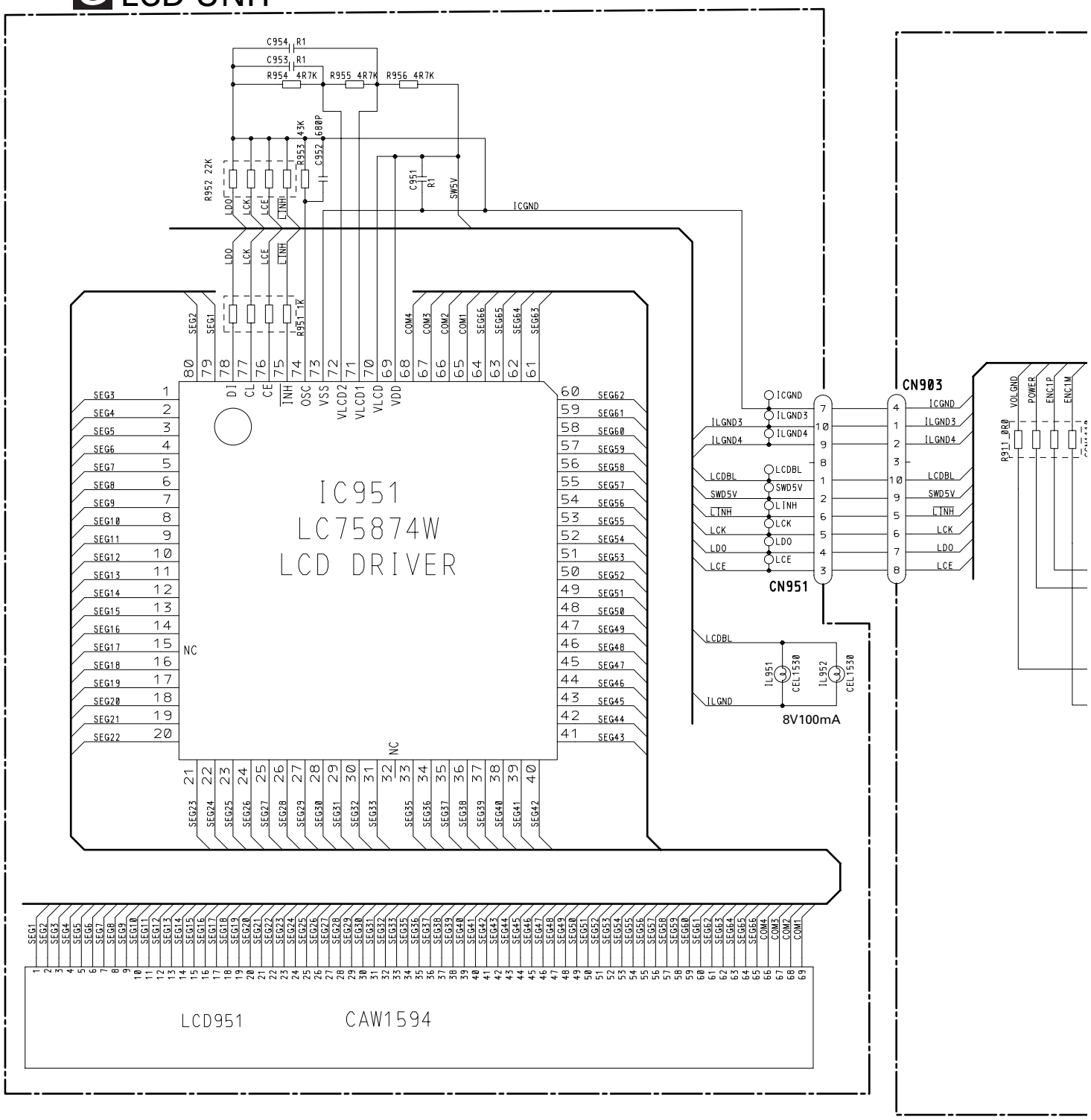
3.4 CASSETTE MECHANISM MODULE



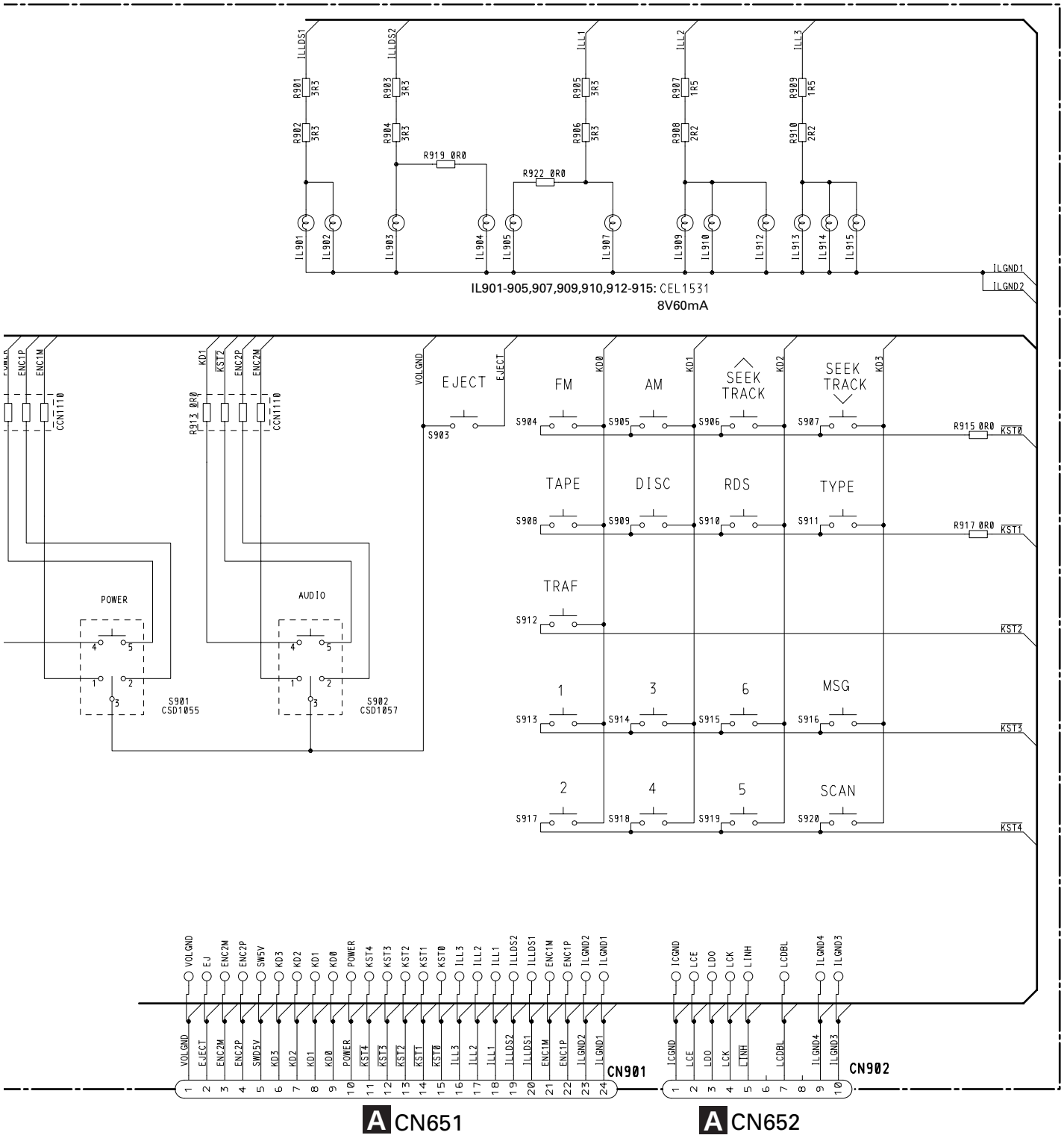


SWITCHES:
PCB UNIT
S1:LOAD SWITCH.....EJECT-PLAY
S2:70µs SWITCH.....ON-OFF
The underlined indicates the switch position.

3.5 LCD UNIT, KEYBOARD UNIT



F KEYBOARD UNIT



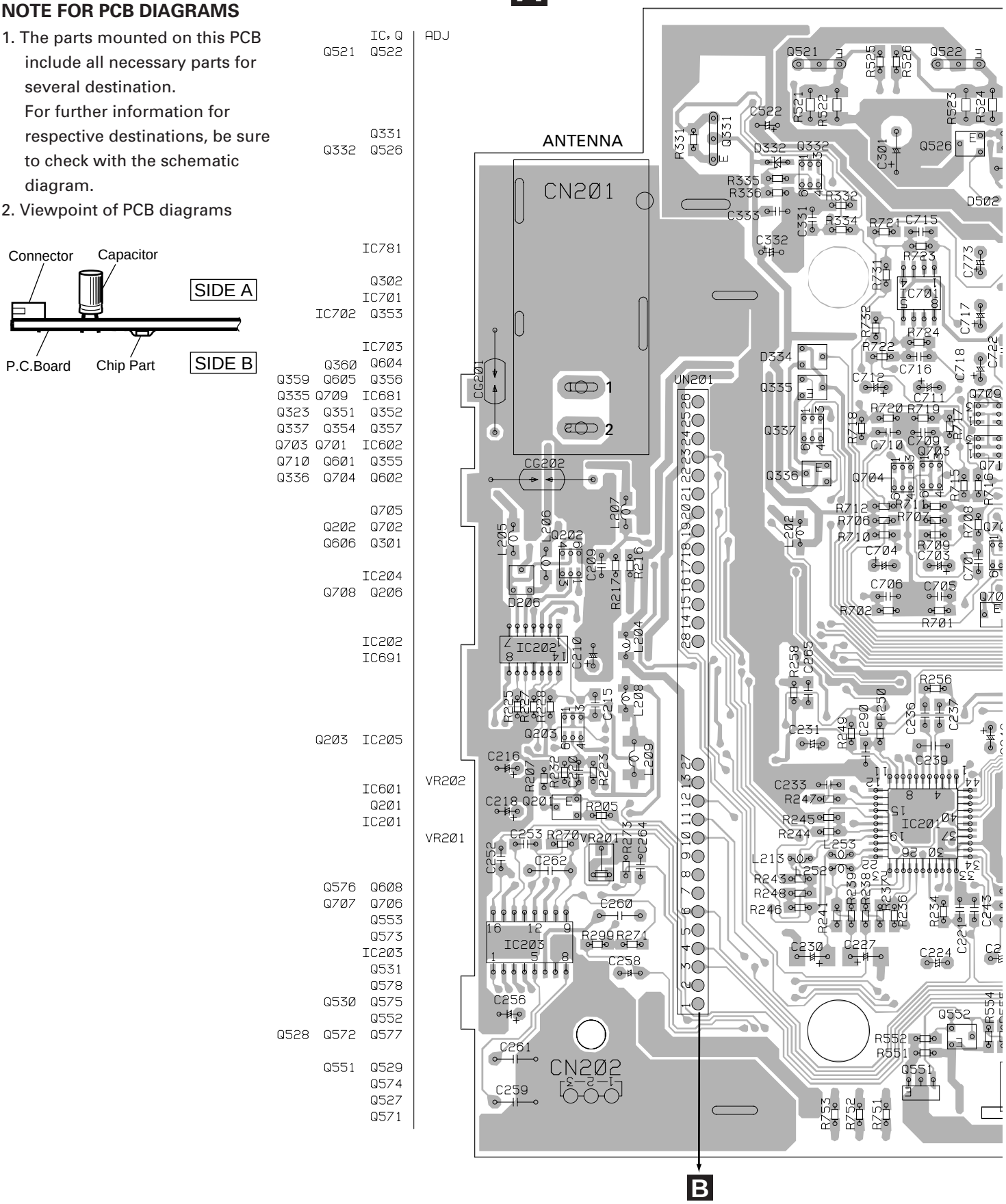
4. PCB CONNECTION DIAGRAM

4.1 MAIN UNIT

NOTE FOR PCB DIAGRAMS

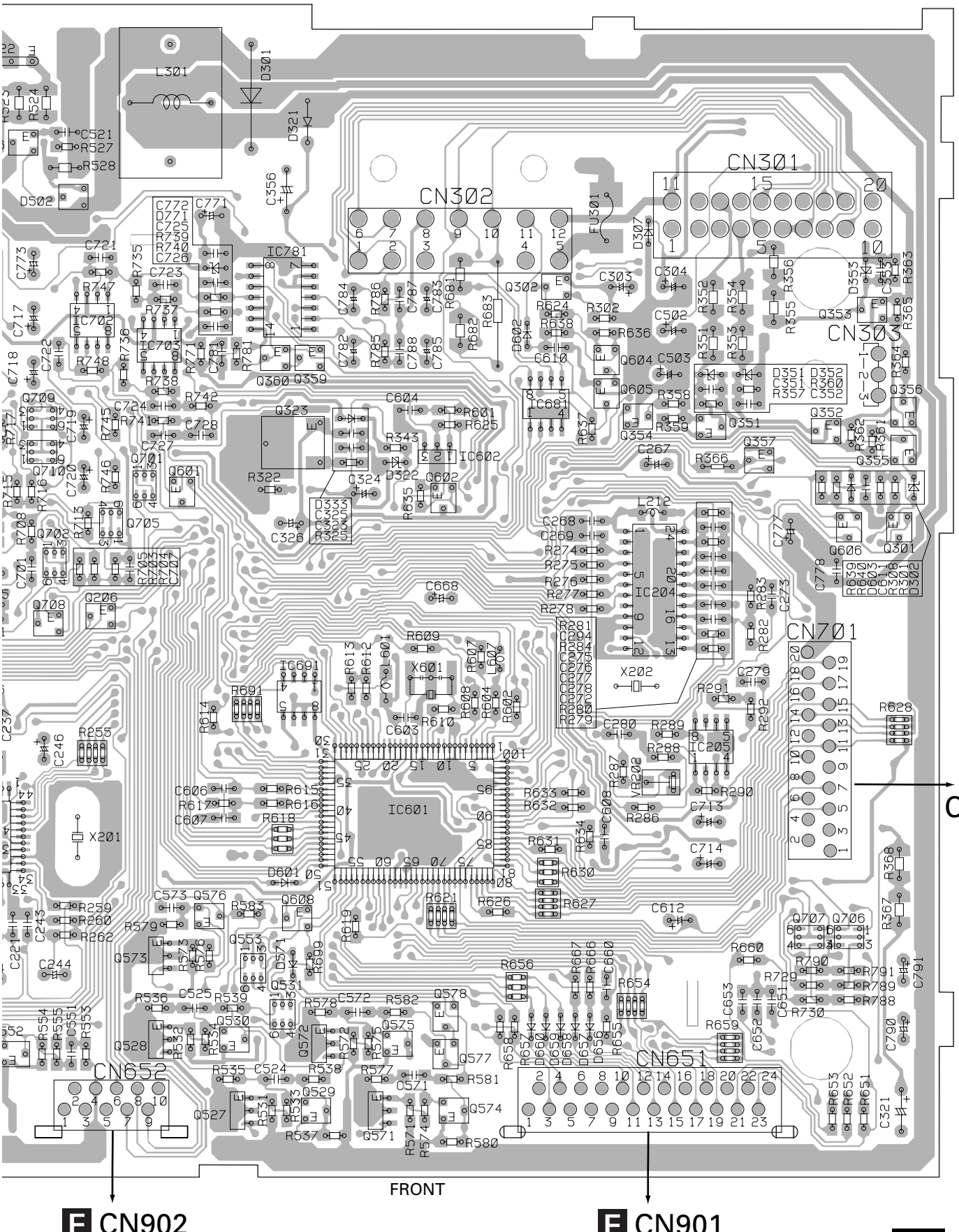
1. The parts mounted on this PCB include all necessary parts for several destination.
   For further information for respective destinations, be sure to check with the schematic diagram.
2. Viewpoint of PCB diagrams

A MAIN UNIT

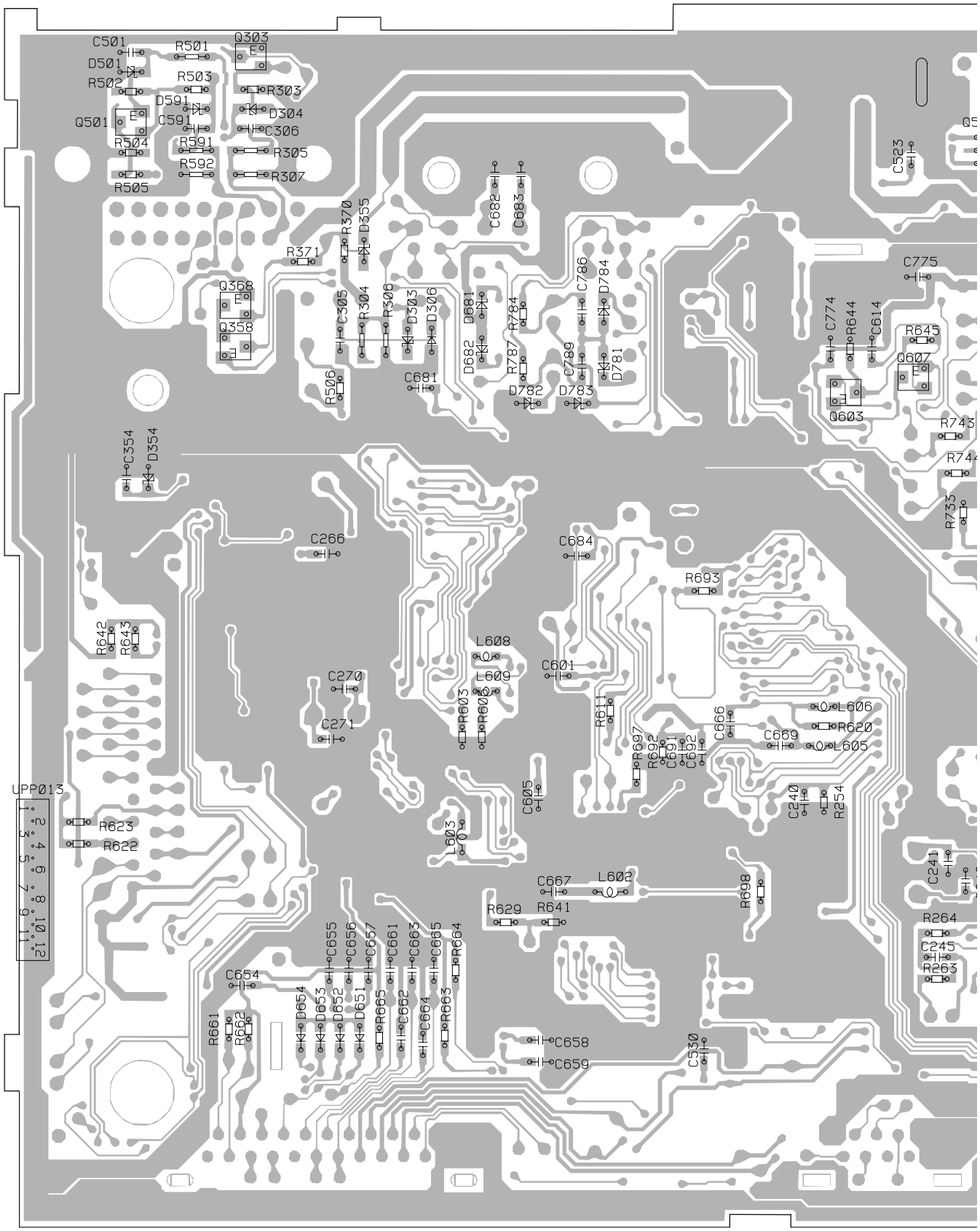


	IC, Q	ADJ
Q521	Q522	
	Q331	
Q332	Q526	
	IC781	
	Q302	
	IC701	
IC702	Q353	
	IC703	
	Q360 Q604	
Q359	Q605 Q356	
Q335	Q709 IC681	
Q323	Q351 Q352	
Q337	Q354 Q357	
Q703	Q701 IC602	
Q710	Q601 Q355	
Q336	Q704 Q602	
	Q705	
	Q202 Q702	
	Q606 Q301	
	IC204	
	Q708 Q206	
	IC202	
	IC691	
	Q203 IC205	
	IC601	VR202
	Q201	
	IC201	VR201
	Q576 Q608	
	Q707 Q706	
	Q553	
	Q573	
	IC203	
	Q531	
	Q578	
	Q530 Q575	
	Q552	
Q528	Q572 Q577	
	Q551 Q529	
	Q574	
	Q527	
	Q571	

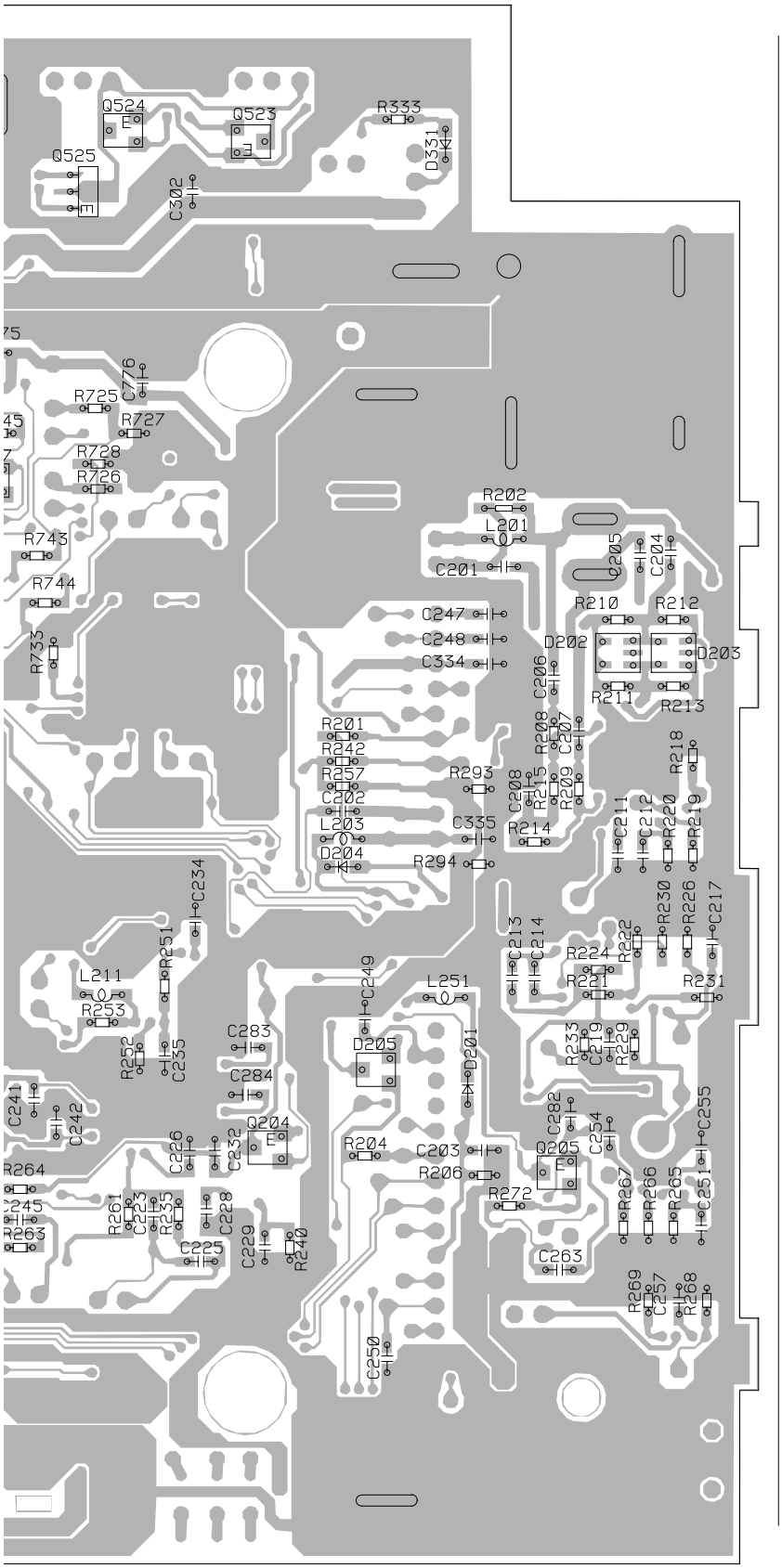
SIDE A


CN301
CN302
CN303
CN651
CN652
CN701
IC204
IC601
IC691
IC781
L301
D301
D321
X201
X202
X601
C CN251
F CN902
F CN901
FRONT

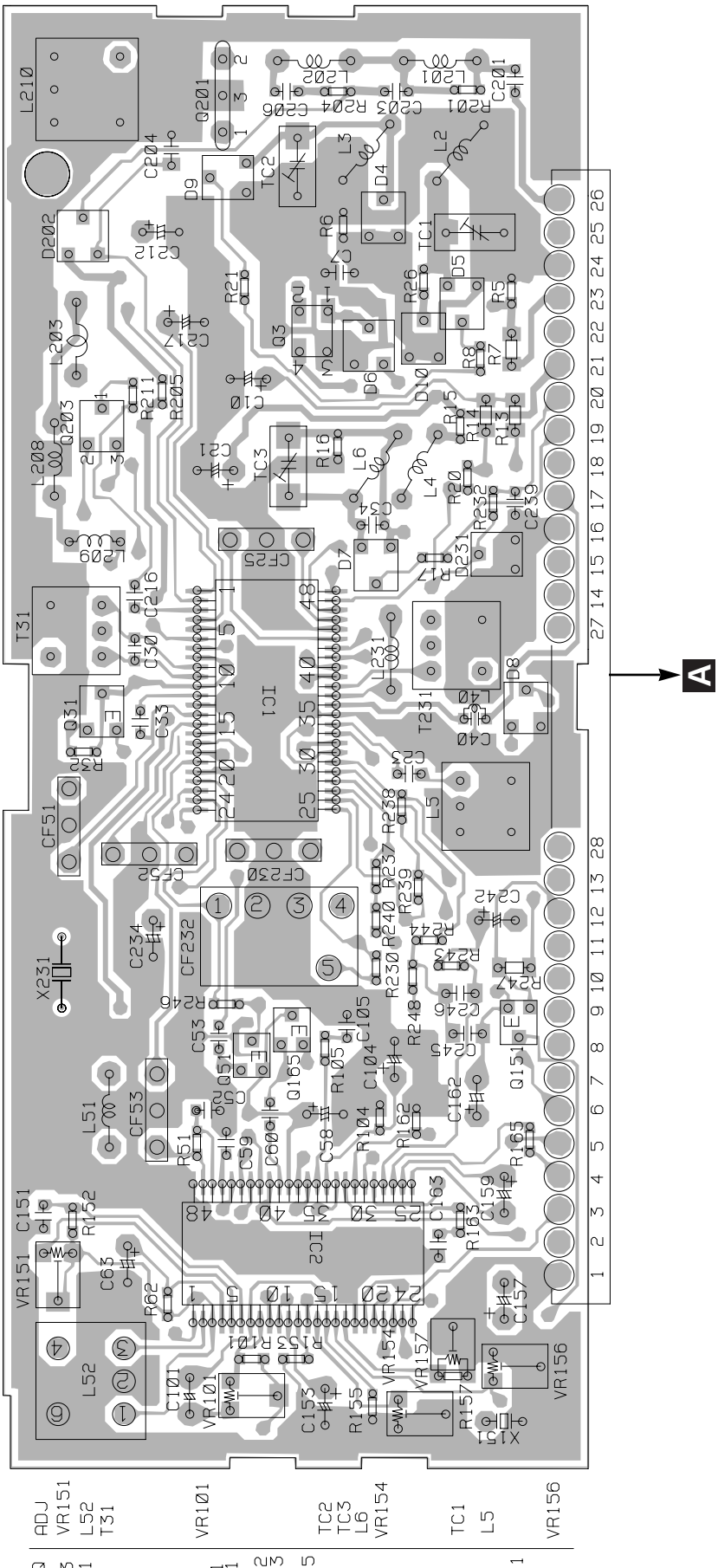
A MAIN UNIT


C501
R501
Q303
D501
R502
R503
R303
D591
D304
Q501
C591
C306
R504
R591
R305
R592
R307
R505
C523
R370
D355
C682
C683
R371
C775
C368
C305
R304
R306
D303
D306
D681
C786
D784
C774
R644
C614
R645
C681
D682
R784
R787
C789
D781
Q607
R506
D782
D783
Q603
R743
C354
D354
C266
C684
R693
R642
R643
L608
C601
C270
L609
R603
R606
C271
R611
R607
R692
C691
C692
C666
C669
L606
R620
L605
C605
C240
R254
UPP013
R623
R622
L603
C667
L602
R698
C241
R629
R641
R264
C245
R263
C654
C655
C656
C657
C661
C663
C665
R664
D654
D653
D652
D651
R665
C662
C664
R663
R661
R662
C658
C659
C530

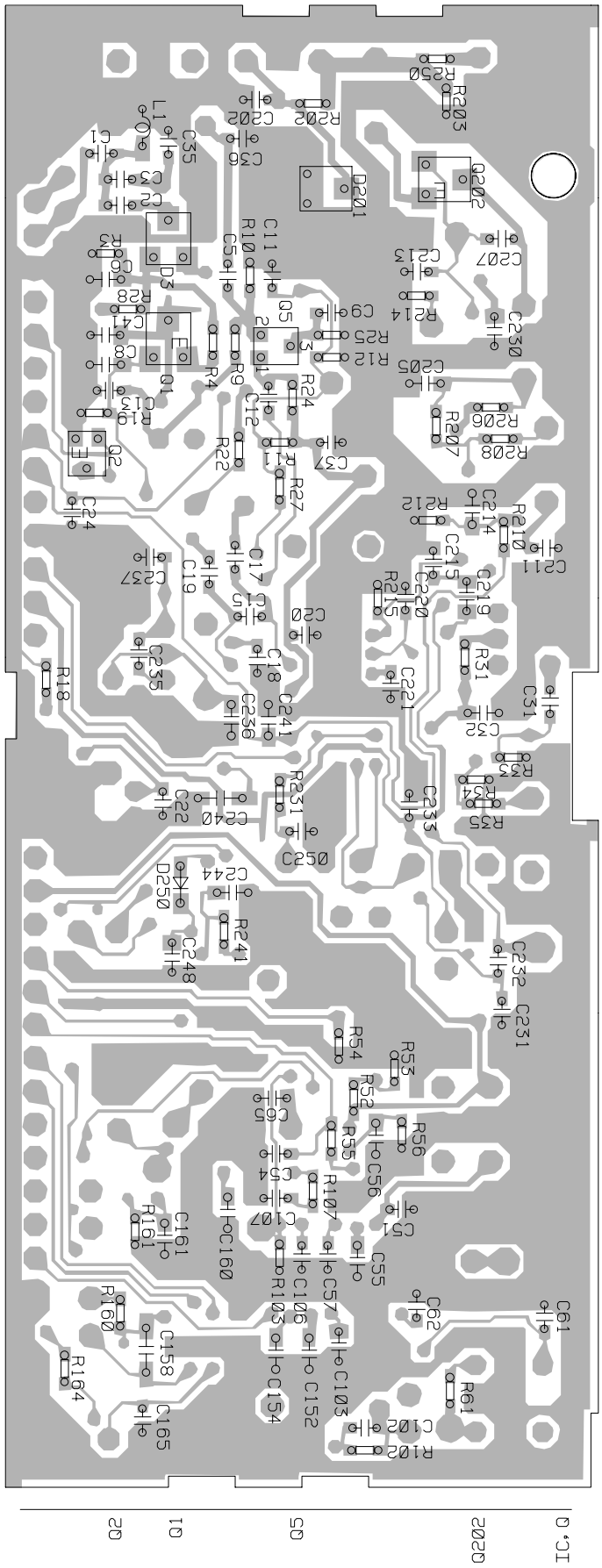
SIDE B


IC, Q
Q303
Q524 Q523
Q501 Q525
Q368
Q358
Q607
Q603
Q204
Q205
Q524
Q523
Q525
R333
D331
C302
R725
C776
R727
R728
R726
R743
R744
R733
R202
L201
C201
Q205
C204
C247
C248
C334
R210
R212
D202
D203
C206
R211
R213
R201
R242
R257
C202
L203
D204
R293
C208
R215
R208
C207
R209
R218
C335
R214
R294
C211
C212
R220
R219
C234
R230
R226
C217
C213
C214
R222
R224
R221
R231
L211
R253
R251
L251
C249
C283
C284
D205
D201
R233
C210
R229
C241
C242
Q204
C226
C232
R204
C203
R206
R272
Q205
C254
C282
R264
R261
C223
R235
C228
C225
C229
R240
R263
C263
R267
R266
R265
C255
C251
R269
C257
R268
C250

4.2 FM/AM TUNER UNIT



SIDE B

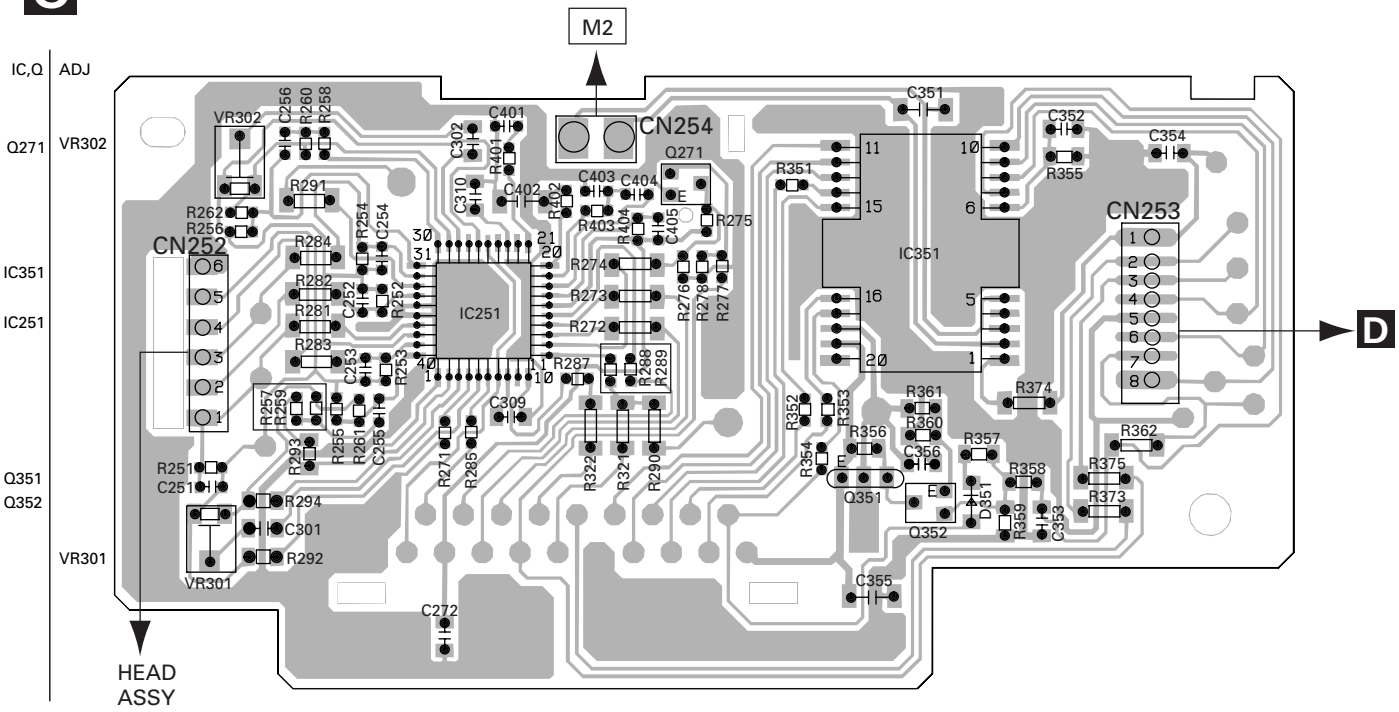


B FM/AM TUNER UNIT

4.3 CASSETTE MACHANISM MODULE

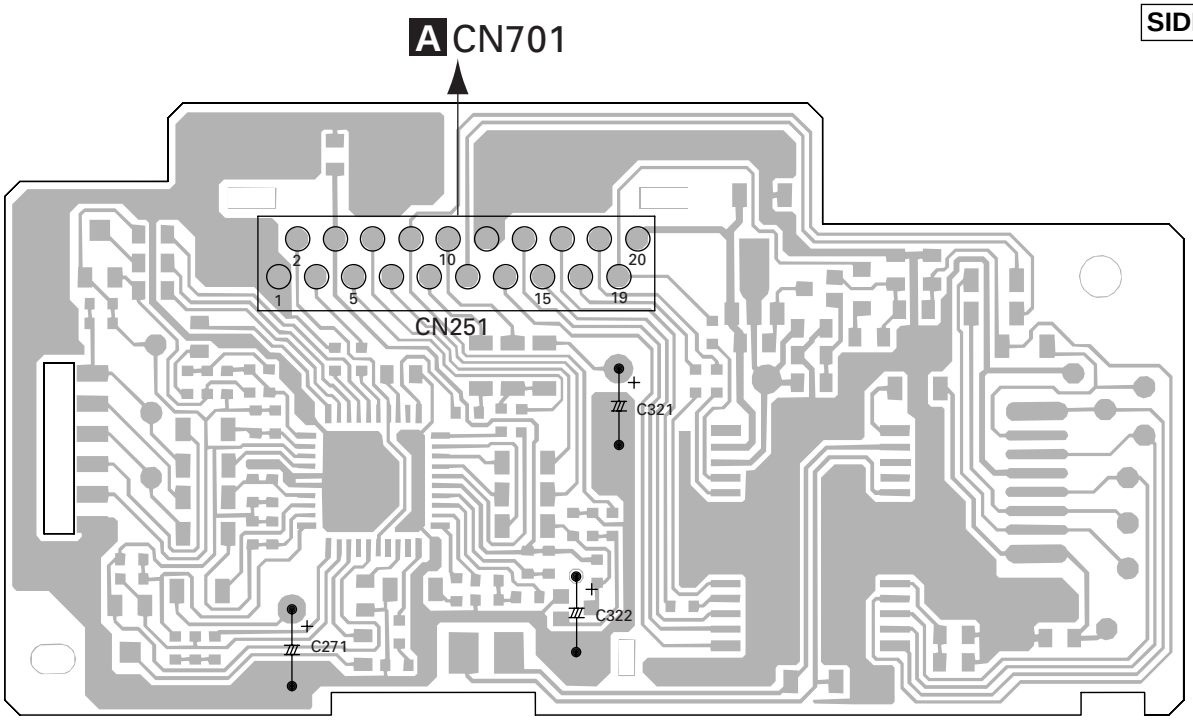
SIDE A

C DECK UNIT



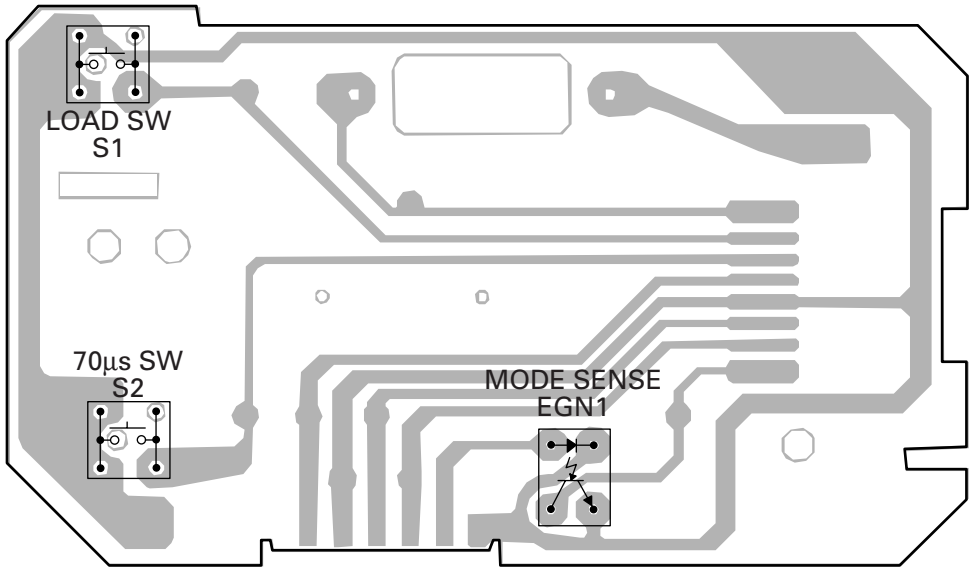
C DECK UNIT

SIDE B



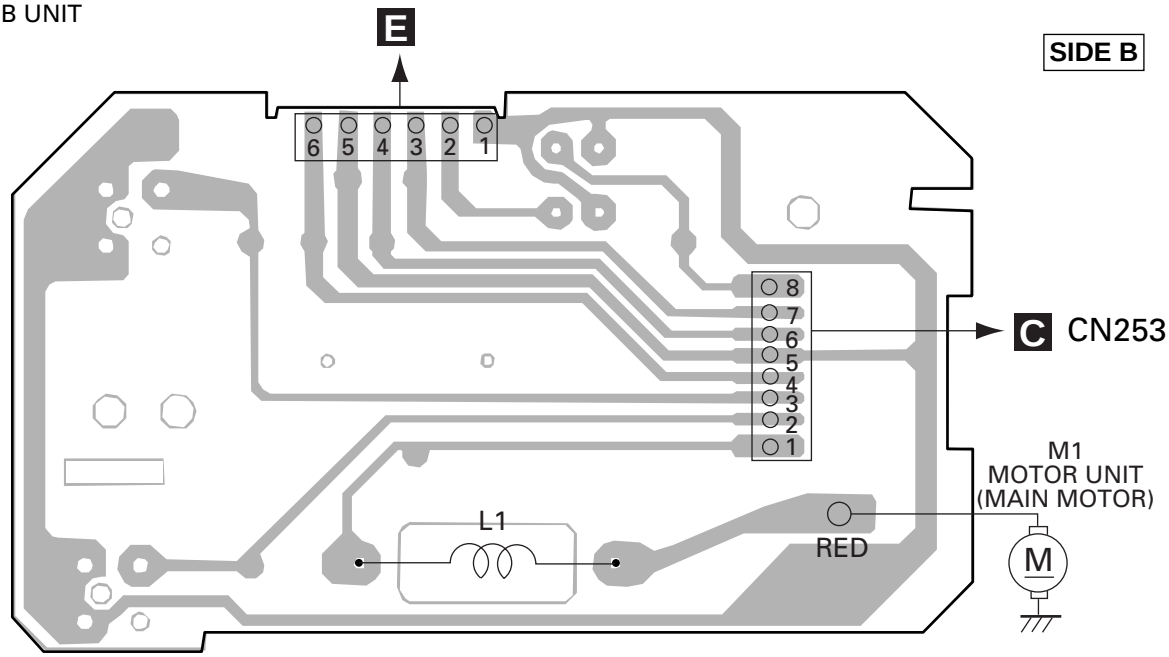
D PCB UNIT

SIDE A

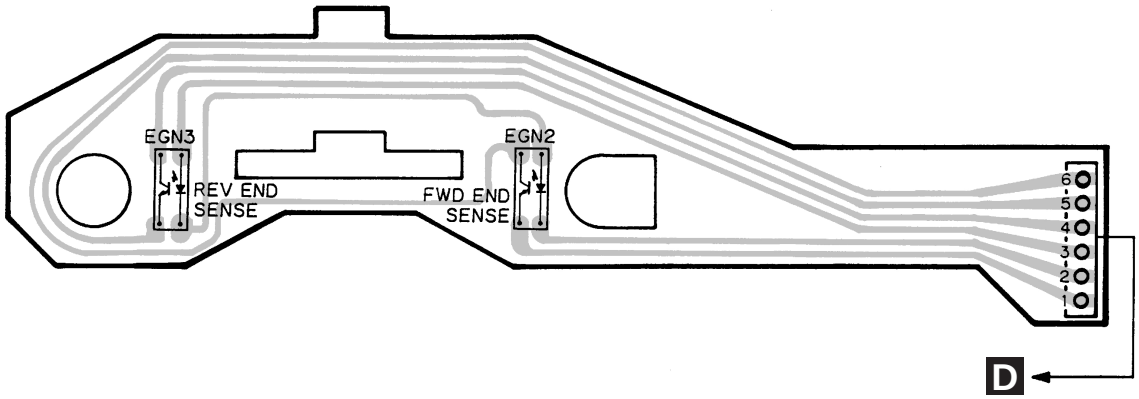


D PCB UNIT

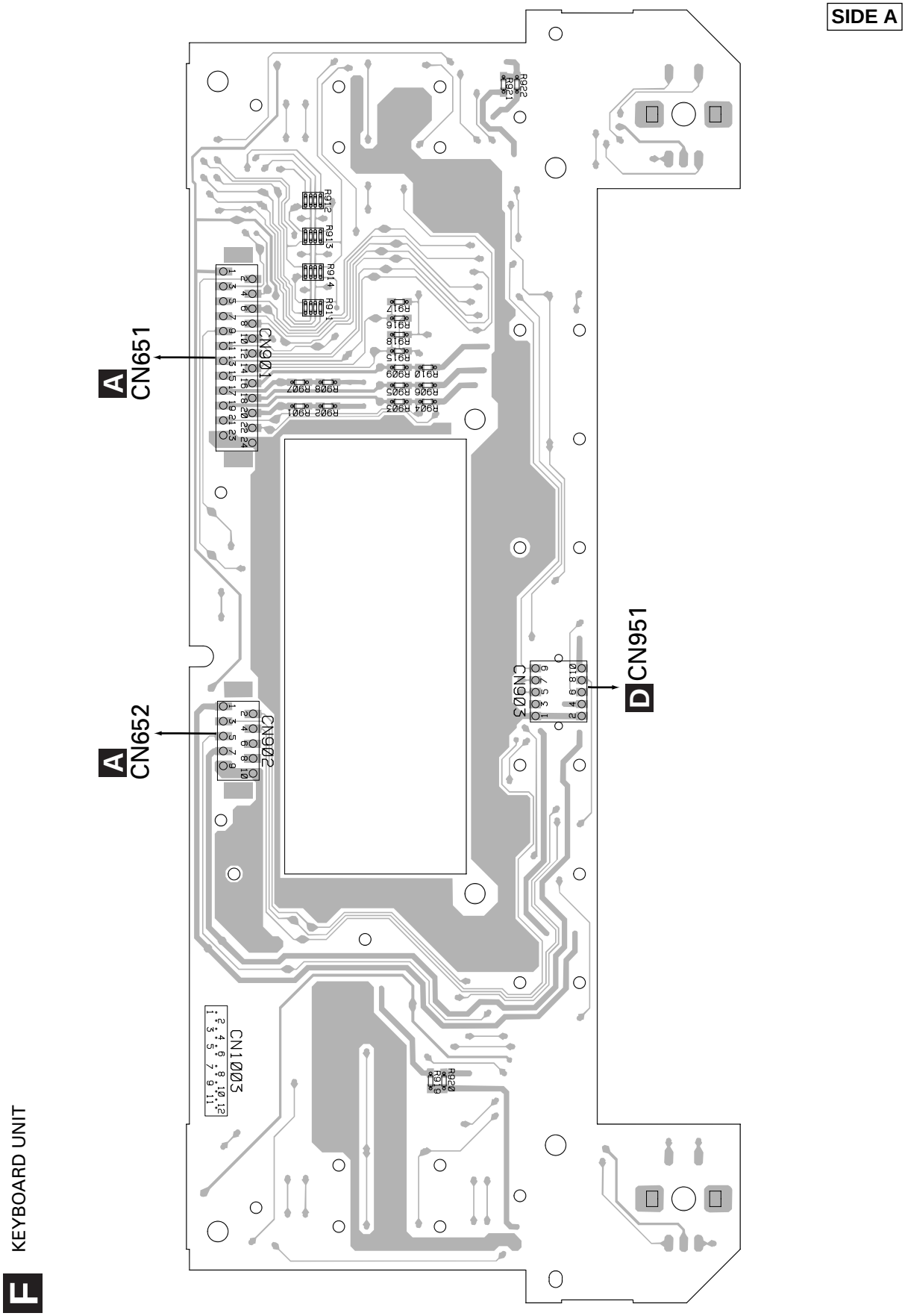
SIDE B



E REEL UNIT

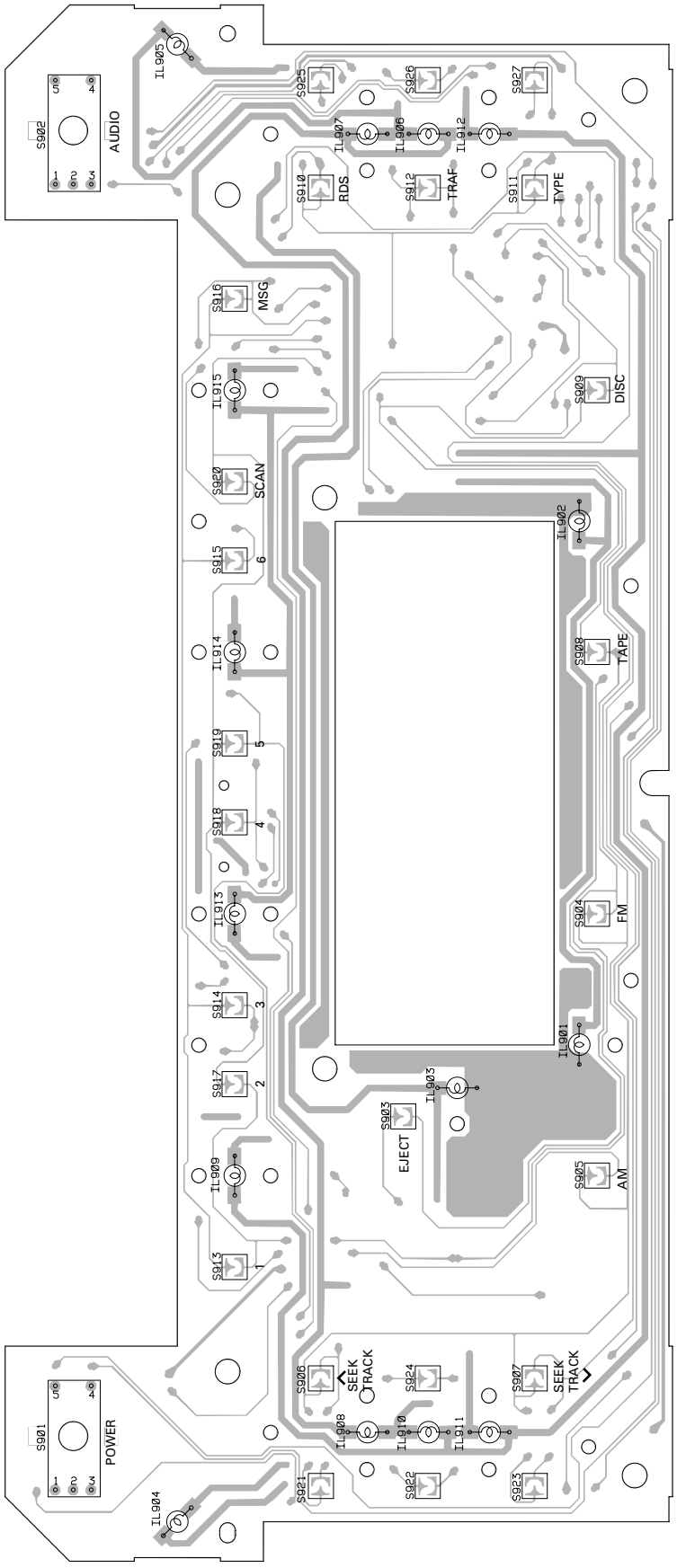


4.4 KEYBOARD UNIT



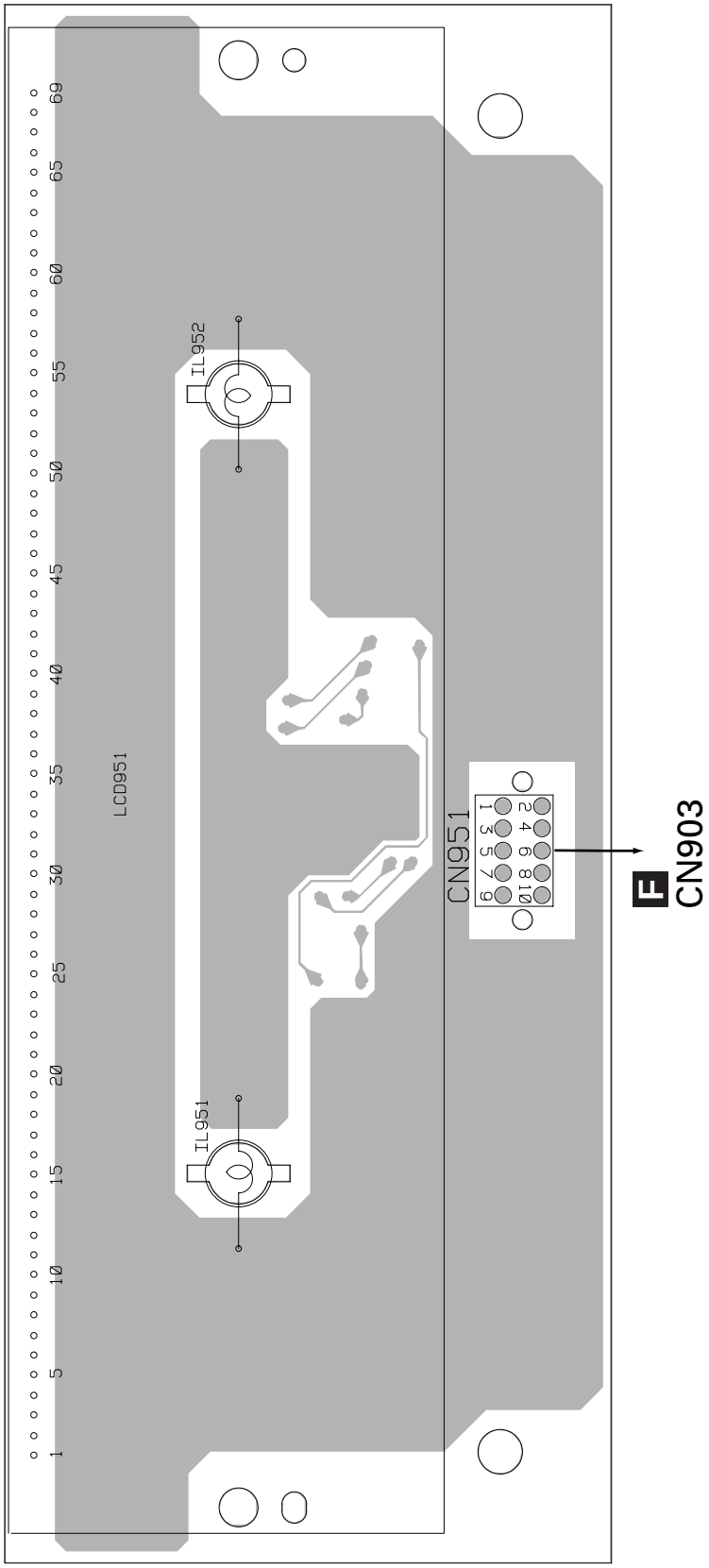
F KEYBOARD UNIT

SIDE B

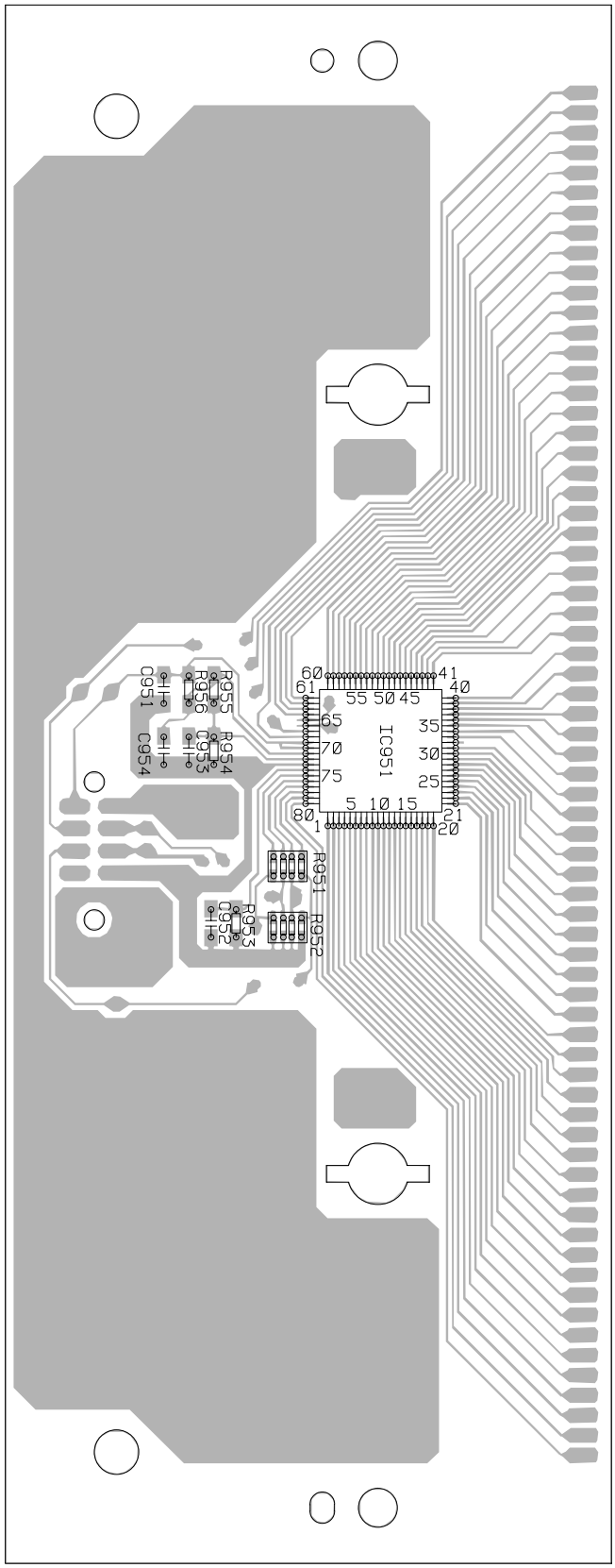


KEYBOARD UNIT

4.5 LCD UNIT



SIDE B



LCD UNIT

5. ELECTRICAL PARTS LIST

NOTE:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor

RS1/○S○○○J,RS1/○○S○○○J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

B Unit Number : CWE1543
Unit Name : FM/AM Tuner Unit

MISCELLANEOUS

Circuit Symbol	No.	Part Name	Part No.
IC	1	IC	PA4026A
IC	2	IC	PA4024A
Q	1	Chip Transistor	2SC2712
Q	3	FET	3SK263
Q	5	Transistor	2SK1067
Q	31	Chip Transistor	2SC2712
Q	151	Transistor	DTC144EU
Q	165	Transistor	2SC4116
Q	201	FET	2SK291
Q	202	Chip Transistor	2SC2712
Q	203	FET	2SK2373
D	3	Diode	1SV251
D	4	Diode	1SV250
D	5	Diode	KV1410-F1
D	6	Diode	MA157
D	7	Diode	KV1410-F1
D	8	Diode	KV1410-F1
D	9	Diode	KV1410-F1
D	10	Diode	1SV250
D	201	Diode	MA157
D	202	Diode	1SV251
D	231	Diode	SVC253
L	1	Inductor	LCTBR12K2125
L	2	Air-core Coil	CTC1152
L	3	Air-core Coil	CTC1152
L	4	Air-core Coil	CTC1151
L	5	Coil	CTC1147
L	6	Air-core Coil	CTC1153
L	40	Inductor	LCTBR15K1608
L	51	Ferri-Inductor	LAU150K
L	52	Coil	CTC1136
L	201	Ferri-Inductor	LAU4R7K
L	202	Ferri-Inductor	LAU330K
L	203	Inductor	CTF1371
L	208	Inductor	LAU390K
L	209	Inductor	LCTA680J3225
L	210	Coil	CTB1103
L	231	Inductor	LAU3R3J
T	31	Coil	CTE1116
TC	1	Trimmer	CCL1019
TC	2	Trimmer	CCL1019
TC	3	Trimmer	CCL1019
CF	25	Ceramic Filter	CTF1292
CF	51	Ceramic Filter	CTF1292
CF	52	Ceramic Filter	CTF1292
CF	53	Ceramic Filter	CTF1292
CF	230	Crystal Filter	CTF1262
CF	232	Ceramic Filter	CTF1348
X	151	Radiator 918.5Hz	CSS1365
X	231	Crystal Resonator 10.26MHz	CSS1111

Circuit Symbol	No.	Part Name	Part No.
VR	101	Semi-fixed 15kΩ(B)	CCP1230
VR	151	Semi-fixed 10kΩ(B)	CCP1229
VR	154	Semi-fixed 150kΩ(B)	CCP1236
VR	156	Semi-fixed 100kΩ(B)	CCP1235

RESISTORS

Circuit Symbol	No.	Part No.
R	3	RS1/16S223J
R	4	RS1/16S101J
R	6	RS1/16S101J
R	8	RS1/16S332J
R	9	RS1/16S823J
R	10	RS1/16S223J
R	11	RS1/16S124J
R	12	RS1/16S474J
R	15	RS1/16S161J
R	16	RS1/16S104J
R	17	RS1/16S332J
R	18	RS1/16S332J
R	19	RS1/16S154J
R	21	RS1/16S332J
R	22	RS1/16S510J
R	24	RS1/16S101J
R	25	RS1/16S221J
R	26	RS1/16S102J
R	31	RS1/16S470J
R	32	RS1/16S912J
R	33	RS1/16S912J
R	34	RS1/16S331J
R	35	RS1/16S331J
R	51	RS1/16S331J
R	55	RS1/16S102J
R	56	RS1/16S823J
R	61	RS1/16S392J
R	62	RS1/16S273J
R	103	RS1/16S333J
R	104	RS1/16S334J
R	105	RS1/16S683J
R	107	RS1/16S222J
R	152	RS1/16S393J
R	155	RS1/16S393J
R	157	RS1/10S223J
R	160	RS1/16S222J
R	161	RS1/16S563J
R	162	RS1/16S225J
R	163	RS1/16S222J
R	164	RS1/16S823J
R	165	RS1/16S102J
R	201	RS1/16S103J
R	202	RS1/16S103J
R	203	RS1/16S225J
R	204	RS1/16S472J
R	205	RS1/16S471J
R	206	RS1/16S220J
R	207	RS1/16S101J
R	208	RS1/16S102J
R	210	RS1/16S125J

=====Circuit Symbol and No.	Part Name	Part No.
R 211		RS1/16S223J
R 214		RS1/16S393J
R 215		RS1/16S104J
R 230		RS1/16S0R0J
R 231		RS1/16S242J
R 232		RS1/16S473J
R 237		RS1/16S103J
R 238		RS1/16S104J
R 239		RS1/16S104J
R 240		RS1/16S103J
R 241		RS1/16S202J
R 243		RS1/16S123J
R 244		RS1/16S103J
R 246		RS1/16S0R0J
R 247		RS1/10S303J
R 248		RS1/16S0R0J
R 250		RS1/16S0R0J

CAPACITORS

C 1		CCSRCH220J50
C 2		CKSRYB222K50
C 3		CCSRCH4R0D50
C 5		CKSRYB222K50
C 6		CKSQYB473K16
C 7		CKSQYB473K16
C 8		CKSQYB104K16
C 9		CKSRYB222K50
C 10		CEAL1R0M50
C 11		CCSRCH470J50
C 12		CCSRCJ3R0C50
C 13		CKSRYB222K50
C 15		CCSRCJ3R0D50
C 17		CCSRCH120J50
C 18		CKSRYB103K25
C 19		CCSRCH120J50
C 20		CKSRYB222K50
C 21		CEAL100M16
C 22		CCSRRH100D50
C 23		CCSRRH150J50
C 24		CCSRCH471J50
C 30		CCSRRH201J50
C 31		CKSRYB103K25
C 32		CKSQYB473K16
C 33		CCSRCH220J50
C 34		CCSRCH4R0D50
C 41		CKSQYB104K16
C 51		CKSRYB223K25
C 52		CKSRYB103K25
C 54		CCSRCH470J50
C 55		CKSQYB223K25
C 56		CKSQYB104K16
C 57		CKSRYB472K50
C 58		CEJA330M10
C 59		CKSRYB103K25
C 61		CCSRCH270J50
C 62		CKSRYB103K25
C 63		CEALR22M50
C 65		CKSQYB104K16
C 101		CEALNP100M10
C 102		CKSRYB182K50
C 103		CKSQYB682K50
C 104		CEAL2R2M50
C 105		CKSRYB103K25
C 106		CCSRCH151J50
C 107		CKSRYB103K25
C 151		CKSRYB562K25
C 152		CKSQYB104K16
C 153		CEAL3R3M50
C 154		CKSQYB104K16
C 157		CEAL3R3M50
C 158		CKSYB474K16
C 159		CEAL220M6R3
C 160		CKSQYB104K16
C 161		CKSQYB104K16
C 162		CEAL3R3M50
C 163		CKSRYB102K50
C 165		CCSRCH100D50
C 201		CKSRYB103K25
C 202		CCSRCH100D50
C 203		CKSRYB332K50
C 204		CKSQYB473K16
C 205		CKSQYB473K16
C 206		CKSRYB103K25
C 207		CCSRCH120J50
C 211		CCSRCH560J50
C 212		CEAL680M10
C 213		CKSRYB103K25
C 214		CKSQYB225K10
C 215		CCSRCH680J50
C 216		CCSRCH101J50
C 217		CEAL2R2M50
C 219		CKSRYB223K25
C 220		CKSRYB103K25
C 221		CKSRYB103K25
C 230		CKSQYB104K16
C 231		CCSRCH330J50
C 232		CCSRCH150J50
C 233		CKSRYB103K25
C 234		CEJA330M10
C 235		CKSRYB332K50
C 236		CKSQYB473K16
C 237		CCSRTH180J50
C 239		CKSRYB103K25
C 240		CKSYB104K16
C 241		CKSQYB104K16
C 242		CEALR47M50
C 244		CKSQYB473K16
C 245		CKSQYB103K25
C 248		CKSQYB334K16
C 250		CCSRCJ3R0C50

A Unit Number : CWM7090
Unit Name : Main Unit

MISCELLANEOUS

IC 201	IC		PM2007A
IC 202	IC		LA1061M
IC 203	IC		HA12181FP
IC 204	IC		PM4006B
IC 205	IC		NJM2903M
IC 601	IC		PD5579A
IC 602	IC		S-80736AN-D0
IC 681	IC		HA12187FP
IC 701	IC		NJM2068MD
IC 702	IC		NJM2068MD
IC 703	IC		NJM2068MD
IC 781	IC		TC74HC4066AF
Q 201	Chip Transistor		2SC2712
Q 202	Transistor		IMH11A
Q 203	Transistor		IMX1
Q 204	Chip Transistor		2SC2712
Q 205	Chip Transistor		2SC2712
Q 206	Chip Transistor		2SC2712
Q 301	Chip Transistor		2SC2712
Q 302	Transistor		DTC144TK

Circuit Symbol and No.	Part Name	Part No.
Q 303	Transistor	DTC144TK
Q 323	Transistor	2SD2318F5
Q 331	Transistor	2SB1185
Q 332	Transistor	IMX1
Q 335	Transistor	DTB123EK
Q 336	Transistor	DTB123EK
Q 337	Transistor	IMX1
Q 357	Transistor	DTC114EK
Q 358	Transistor	DTA114EK
Q 359	Transistor	DTC114EK
Q 360	Transistor	DTA114EK
Q 368	Chip Transistor	2SC2712
Q 501	Transistor	2SA1162
Q 521	Transistor	2SB1185
Q 522	Transistor	2SB1185
Q 525	Transistor	2SD1767
Q 526	Chip Transistor	2SC2712
Q 527	Transistor	2SA1797
Q 528	Transistor	2SA1797
Q 529	Transistor	2SA1162
Q 530	Transistor	2SA1162
Q 531	Transistor	IMD3A
Q 551	Transistor	2SA1797
Q 552	Transistor	2SA1162
Q 553	Transistor	IMD3A
Q 571	Transistor	2SA1797
Q 572	Transistor	2SA1797
Q 573	Transistor	2SA1797
Q 574	Transistor	2SA1162
Q 575	Transistor	2SA1162
Q 576	Transistor	2SA1162
Q 577	Transistor	DTC123YK
Q 578	Transistor	DTA114EK
Q 601	Transistor	DTA144EK
Q 602	Transistor	2SA1162
Q 603	Transistor	DTA114EK
Q 607	Chip Transistor	2SC2712
Q 608	Transistor	DTA114EK
Q 701	Transistor	IMH4
Q 702	Transistor	IMX1
Q 703	Transistor	IMH4
Q 704	Transistor	IMH4
Q 705	Transistor	IMH4
Q 706	Transistor	IMH4
Q 707	Transistor	IMH4
Q 708	Transistor	2SC2412K
Q 709	Transistor	IMH4
Q 710	Transistor	IMH4
D 201	Diode	1SS355
D 202	Diode	1SV241
D 203	Diode	1SV241
D 204	Diode	1SS355
D 205	Diode	MA152WK
D 206	Diode	DAP202K
D 301	Diode	ERC05-10B
D 302	Diode	HZU8R2(B1)
D 303	Diode	HZU8R2(B1)
D 304	Diode	HZU8R2(B1)
D 306	Diode	1SS355
D 307	Diode	1SS355
D 321	Diode	ERA15-02VH
D 322	Diode	UDZS5R6(B)
D 331	Diode	1SS355
D 332	Diode	HZU8R2(B1)
D 333	Diode	1SS355
D 334	Diode	MA152WK
D 354	Diode	UDZ20(B)
D 355	Diode	HZU8R2(B3)
D 501	Diode	UDZS8R2(B)
D 502	Diode	MA153
D 571	Diode	1SS355
D 591	Diode	UDZS10(B)
D 601	Diode	1SS355
D 656	Diode	1SS355
D 657	Diode	1SS355
D 658	Diode	1SS355
D 659	Diode	1SS355
D 660	Diode	1SS355
D 681	Diode	UDZ18(B)
D 682	Diode	UDZ18(B)
D 771	Diode	HZU4LL(C)
D 781	Diode	UDZS10(B)
D 782	Diode	UDZS10(B)
D 783	Diode	UDZS10(B)
D 784	Diode	UDZS10(B)
L 201	Inductor	LCTB4R7K3216
L 202	Inductor	LCTA4R7J3225
L 203	Inductor	LCTA4R7J2520
L 204	Inductor	LCTA4R7J3225
L 205	Inductor	LCTB6R8K3216
L 206	Inductor	LCTB6R8K3216
L 207	Inductor	LCTB6R8K3216
L 208	Inductor	LCTA4R7J3225
L 209	Inductor	LCTA561J4532
L 211	Inductor	LCTA2R2J2520
L 212	Inductor	LCTA101J3225
L 213	Inductor	CTF1305
L 251	Inductor	LCTA101J2520
L 252	Inductor	LCTB2R2K2125
L 253	Inductor	LCTB2R2K2125
L 301	Coil 350µH	CTH1092
L 601	Inductor	LCTB100K3216
L 602	Inductor	LCTB100K3216
L 603	Inductor	LCTB100K3216
L 605	Inductor	CTF1305
L 607	Inductor	CTF1305
L 608	Inductor	CTF1305
L 609	Inductor	CTF1305
CG 201	Surge Protector	DSP-201M-A21F
CG 202	Surge Protector	DSP-201M-A21F
X 201	Crystal Resonator 7.200MHz	CSS1379
X 202	Crystal Resonator 4.332MHz	CSS1056
X 601	Radiator 10.00MHz	CSS1428
VR 201	Semi-fixed 10kΩ(B)	CCP1396
VR 202	Semi-fixed 2.2kΩ(B)	CCP1392
FU 301	Fuse 5A	CEK1195
	FM/AM Tuner Unit	CWE1543

RESISTORS

R 201		RS1/10S103J
R 204		RS1/10S102J
R 205		RS1/10S471J
R 206		RS1/10S105J
R 207		RS1/10S472J
R 208		RS1/10S750J
R 209		RS1/10S750J
R 210		RS1/10S225J
R 211		RS1/10S225J
R 212		RS1/10S225J

=====Circuit Symbol and No.		===Part Name	Part No.
R	213		RS1/10S225J
R	214		RS1/10S225J
R	215		RS1/10S225J
R	216		RS1/10S103J
R	217		RS1/10S102J
R	218		RS1/10S103J
R	219		RS1/10S103J
R	220		RS1/10S104J
R	221		RS1/10S473J
R	222		RS1/10S473J
R	223		RS1/10S224J
R	224		RS1/10S103J
R	225		RS1/10S334J
R	226		RS1/10S101J
R	227		RS1/10S101J
R	228		RS1/10S104J
R	229		RS1/10S104J
R	230		RS1/10S103J
R	231		RS1/10S182J
R	232		RS1/10S683J
R	233		RS1/10S153J
R	234		RS1/10S103J
R	235		RS1/10S561J
R	236		RS1/10S472J
R	237		RS1/10S682J
R	238		RS1/10S102J
R	239		RS1/10S222J
R	240		RS1/10S682J
R	241		RS1/10S472J
R	242		RS1/10S331J
R	243		RS1/10S102J
R	244		RS1/10S102J
R	245		RS1/10S473J
R	246		RS1/10S562J
R	247		RS1/10S222J
R	248		RS1/10S562J
R	249		RS1/10S222J
R	250		RS1/10S222J
R	251		RS1/10S102J
R	252		RS1/10S473J
R	253		RS1/10S472J
R	254		RS1/10S473J
R	255	2.2kΩ	CCN1121
R	256		RS1/10S0R0J
R	258		RS1/10S393J
R	259		RS1/10S272J
R	260		RS1/10S392J
R	261		RS1/10S222J
R	262		RS1/10S392J
R	263		RS1/10S152J
R	264		RS1/10S332J
R	265		RS1/10S473J
R	266		RS1/10S223J
R	267		RS1/10S184J
R	268		RS1/10S104J
R	269		RS1/10S123J
R	270		RS1/10S105J
R	271		RS1/10S822J
R	272		RS1/10S822J
R	273		RS1/10S222J
R	274		RS1/10S102J
R	275		RS1/10S102J
R	276		RS1/10S102J
R	277		RS1/10S102J
R	278		RS1/10S102J

=====Circuit Symbol and No.		===Part Name	Part No.
R	279		RS1/10S102J
R	280		RS1/10S102J
R	281		RS1/10S104J
R	282		RS1/10S562J
R	283		RS1/10S104J
R	284		RS1/10S333J
R	286		RS1/10S681J
R	287		RS1/10S222J
R	288		RS1/10S102J
R	289		RS1/10S562J
R	290		RS1/10S684J
R	291		RS1/10S222J
R	292		RS1/10S222J
R	301		RS1/10S104J
R	302		RS1/10S104J
R	303		RS1/10S104J
R	304		RS1/8S222J
R	305		RS1/8S222J
R	306		RS1/8S472J
R	307		RS1/8S472J
R	308		RS1/10S473J
R	322		RS1/10S223J
R	325		RS1/10S101J
R	331		RS1/10S223J
R	332		RS1/10S102J
R	333		RS1/10S331J
R	334		RS1/10S103J
R	335		RS1/10S471J
R	336		RS1/10S102J
R	343		RS1/10S472J
R	366		RS1/8S221J
R	370		RS1/10S104J
R	371		RS1/10S473J
R	501		RS1/8S222J
R	502		RS1/10S103J
R	503		RS1/10S103J
R	504		RS1/10S123J
R	505		RS1/10S103J
R	506		RS1/10S103J
R	521		RS1/4S2R2J
R	522		RS1/4S2R2J
R	523		RS1/4S2R2J
R	524		RS1/4S2R2J
R	527		RS1/10S103J
R	528		RS1/4S221J
R	531		RS1/10S2R2J
R	532		RS1/10S2R2J
R	533		RS1/10S471J
R	534		RS1/10S471J
R	535		RS1/10S822J
R	536		RS1/10S822J
R	537		RS1/10S103J
R	538		RS1/10S102J
R	539		RS1/10S102J
R	551		RS1/10S2R2J
R	552		RS1/10S471J
R	553		RS1/10S822J
R	554		RS1/10S103J
R	555		RS1/10S102J
R	571		RS1/10S2R2J
R	572		RS1/10S2R2J
R	573		RS1/10S2R2J
R	574		RS1/10S471J
R	575		RS1/10S471J
R	576		RS1/10S471J

=====Circuit Symbol and No.		===Part Name	Part No.
R	577		RS1/10S822J
R	578		RS1/10S822J
R	579		RS1/10S822J
R	580		RS1/10S103J
R	581		RS1/10S102J
R	582		RS1/10S102J
R	583		RS1/10S102J
R	591		RS1/8S222J
R	592		RS1/8S472J
R	601		RS1/10S104J
R	602		RS1/10S102J
R	604		RS1/10S102J
R	607		RS1/10S102J
R	608		RS1/10S102J
R	609		RS1/10S102J
R	610		RS1/10S681J
R	611		RS1/10S102J
R	612		RS1/10S102J
R	613		RS1/10S473J
R	614		RS1/10S473J
R	615		RS1/10S103J
R	616		RS1/10S103J
R	617		RS1/10S472J
R	618		RA3C103J
R	620		RS1/10S0R0J
R	621	1kΩ	CCN1120
R	622		RS1/10S473J
R	623		RS1/10S473J
R	624		RS1/10S473J
R	625		RS1/10S104J
R	626		RS1/10S223J
R	627	1kΩ	CCN1120
R	628	47kΩ	CCN1131
R	629		RS1/10S102J
R	630		RA3C102J
R	631		RS1/10S681J
R	632		RS1/10S102J
R	633		RS1/10S102J
R	634		RS1/10S473J
R	635		RS1/10S103J
R	641		RS1/10S473J
R	644		RS1/10S102J
R	645		RS1/10S103J
R	651		RS1/10S102J
R	652		RS1/10S102J
R	653		RS1/10S102J
R	654	1kΩ	CCN1120
R	655		RS1/10S102J
R	656		RA3C102J
R	657		RS1/10S102J
R	658		RS1/10S102J
R	659	47kΩ	CCN1131
R	660		RS1/10S473J
R	661		RS1/10S473J
R	662		RS1/10S473J
R	663		RS1/10S473J
R	664		RS1/10S473J
R	665		RS1/10S473J
R	666		RS1/10S102J
R	667		RS1/10S102J
R	681		RS1/4S101J
R	682		RS1/4S101J
R	683		RS1PMF680J
R	693		RS1/10S473J
R	697		RS1/10S473J

=====Circuit Symbol and No.		===Part Name	Part No.
R	698		RS1/10S0R0J
R	701		RS1/10S392J
R	702		RS1/10S392J
R	703		RS1/10S224J
R	704		RS1/10S224J
R	705		RS1/10S224J
R	706		RS1/10S222J
R	707		RS1/10S222J
R	708		RS1/10S822J
R	709		RS1/10S102J
R	710		RS1/10S102J
R	711		RS1/10S222J
R	712		RS1/10S222J
R	713		RS1/10S102J
R	715		RS1/10S272J
R	716		RS1/10S272J
R	717		RS1/10S222J
R	718		RS1/10S222J
R	719		RS1/10S103J
R	720		RS1/10S103J
R	721		RS1/10S393J
R	722		RS1/10S393J
R	723		RS1/10S823J
R	724		RS1/10S823J
R	725		RS1/10S102J
R	726		RS1/10S102J
R	727		RS1/10S473J
R	728		RS1/10S473J
R	729		RS1/10S222J
R	730		RS1/10S222J
R	731		RS1/10S682J
R	732		RS1/10S682J
R	735		RS1/10S222J
R	736		RS1/10S222J
R	737		RS1/10S222J
R	738		RS1/10S222J
R	739		RS1/10S470J
R	740		RS1/10S470J
R	741		RS1/10S470J
R	742		RS1/10S470J
R	743		RS1/10S102J
R	744		RS1/10S102J
R	745		RS1/10S473J
R	746		RS1/10S473J
R	747		RS1/10S473J
R	748		RS1/10S473J
R	771		RS1/10S103J
R	781		RS1/10S223J
R	784		RS1/10S470J
R	785		RS1/10S470J
R	786		RS1/10S470J
R	787		RS1/10S470J
R	788		RS1/10S272J
R	789		RS1/10S272J
R	790		RS1/10S822J
R	791		RS1/10S822J

CAPACITORS

C	201	CKSQYB222K50
C	202	CKSQYB103K50
C	203	CCSQCH471J50
C	204	CKSQYB222K50
C	205	CKSQYB222K50
C	206	CKSQYB222K50
C	207	CKSQYB222K50
C	208	CKSQYB103K50
C	209	CKSQYB222K50
C	210	CEJA100M16

=====Circuit Symbol and No.		===Part Name	Part No.
C	211		CKSQYB103K50
C	212		CKSQYB472K50
C	213		CKSQYB392K50
C	214		CKSQYB103K50
C	215		CKSQYB103K50
C	216		CEJA100M16
C	217		CKSQYB473K50
C	218		CEJA2R2M50
C	219		CKSQYB102K50
C	220		CKSQYB103K50
C	221		CKSQYB473K50
C	223		CKSQYB103K50
C	224	4.7µF/10V	CCH1280
C	225		CKSQYB154K16
C	226		CKSQYB103K50
C	227		CSZSR220M10
C	228		CKSQYB103K50
C	229		CKSQYB103K50
C	230		CSZSR220M10
C	231		CEJA101M10
C	232		CKSQYB473K50
C	233		CKSQYB223K50
C	234		CKSQYB223K50
C	235		CCSQCH101J50
C	236		CKSQYB103K50
C	237		CKSQYB103K50
C	239		CKSYB473K50
C	240		CKSQYB102K50
C	241		CCSQCH150J50
C	242		CCSQCH150J50
C	243		CKSQYB103K50
C	244	4.7µF/10V	CCH1280
C	245		CKSQYB103K50
C	247		CKSQYB473K50
C	248		CKSQYB473K50
C	249		CKSQYB473K50
C	250		CKSQYB473K50
C	251		CKSQYB334K16
C	252		CKSQYB102K50
C	253		CKSQYB392K50
C	254		CKSQYB682K50
C	255		CKSQYB473K50
C	256		CEJA3R3M50
C	257		CKSQYB333K50
C	258		CEJANP1R0M50
C	259		CQMA683J50
C	260		CQMA333J50
C	261		CQMA333J50
C	262		CQMA333J50
C	263		CKSQYB393K50
C	264		CKSQYB682K50
C	265		CKSQYB473K50
C	266		CKSQYB473K50
C	267		CEAL4R7M35
C	268		CKSQYB104K50
C	270		CCSQCH220J50
C	271		CCSQCH220J50
C	272		CKSQYB223K50
C	273		CKSQYB104K50
C	275		CKSQYB104K50
C	276		CKSQYB105K16
C	277		CKSQYB104K50
C	278		CKSQYB472K50
C	279		CKSQYB103K50
C	280		CKSQYB103K50

=====Circuit Symbol and No.		===Part Name	Part No.
C	282		CKSQYB334K16
C	283		CKSQYB473K50
C	284		CKSQYB473K50
C	290		CKSQYB473K50
C	294		CKSQYB222K50
C	301	2200µF/16V	CCH1186
C	302		CKSQYB473K50
C	303		CEAL1R0M50
C	304		CEAL1R0M50
C	305		CKSQYB102K50
C	306		CKSQYB102K50
C	323		CKSQYB473K50
C	324		CEAL1R0M50
C	325		CKSQYB103K50
C	326		CEJA330M10
C	331		CKSQYB103K50
C	332		CEJA101M16
C	333		CKSQYB103K50
C	334		CKSQYB473K50
C	335		CKSQYB473K50
C	354		CKSQYB102K50
C	356	1000µF/16V	CCH1149
C	501		CKSQYB102K50
C	502		CEAL1R0M50
C	503		CEAL1R0M50
C	521		CKSQYB472K50
C	522		CEJA101M16
C	523		CKSQYB103K50
C	524		CKSQYB102K50
C	525		CKSQYB102K50
C	551		CKSQYB102K50
C	571		CKSQYB102K50
C	572		CKSQYB102K50
C	573		CKSQYB102K50
C	591		CKSQYB102K50
C	603		CKSQYB103K50
C	604		CKSQYB103K50
C	605		CKSQYB102K50
C	606		CKSQYB473K50
C	607		CKSQYB473K50
C	608		CKSQYB102K50
C	612		CEAL4R7M35
C	614		CKSQYB105K16
C	651		CKSQYB103K50
C	652		CKSQYB103K50
C	653		CKSQYB103K50
C	654		CKSQYB102K50
C	655		CKSQYB102K50
C	656		CKSQYB102K50
C	657		CKSQYB102K50
C	658		CKSQYB103K50
C	659		CKSQYB103K50
C	660		CKSQYB103K50
C	661		CKSQYB102K50
C	662		CKSQYB102K50
C	663		CKSQYB102K50
C	664		CKSQYB102K50
C	665		CKSQYB102K50
C	668		CEJA101M6R3
C	669		CKSQYB473K50
C	681		CKSQYB103K50
C	682		CCSQCH221J50
C	683		CCSQCH221J50
C	684		CKSQYB102K50
C	701		CKSQYB105K16

=====Circuit Symbol and No.		===Part Name	Part No.
C	703	2.2µF/50V	CCH1375
C	704	2.2µF/50V	CCH1375
C	705		CKSQYB223K50
C	706		CKSQYB223K50
C	707		CKSQYB223K50
C	709		CKSQYB153K50
C	710		CKSQYB153K50
C	711	2.2µF/50V	CCH1375
C	712	2.2µF/50V	CCH1375
C	713	4.7µF/35V	CCH1016
C	714	4.7µF/35V	CCH1016
C	715		CCSQCH120J50
C	716		CCSQCH120J50
C	717	4.7µF/35V	CCH1016
C	718	4.7µF/35V	CCH1016
C	719	4.7µF/35V	CCH1016
C	720	4.7µF/35V	CCH1016
C	721		CCSQCH151J50
C	722		CCSQCH151J50
C	723		CCSQCH331J50
C	724		CCSQCH331J50
C	725		CKSQYB682K50
C	726		CKSQYB682K50
C	727		CKSQYB682K50
C	728		CKSQYB682K50
C	771		CEJA101M6R3
C	772		CKSQYB103K50
C	773		CEJA101M10
C	774		CKSQYB103K50
C	775		CKSQYB103K50
C	776		CKSQYB103K50
C	777		CEJA101M16
C	778		CKSQYB103K50
C	781		CKSQYB104K50
C	782		CEALNP4R7M16
C	783		CEALNP4R7M16
C	784		CEALNP4R7M16
C	785		CEALNP4R7M16
C	786		CCSQCH101J50
C	787		CCSQCH101J50
C	788		CCSQCH101J50
C	789		CCSQCH101J50
C	790	4.7µF/50V	CCH1320
C	791	4.7µF/50V	CCH1320

G Unit Number : CWM7104
Unit Name : LCD Unit

MISCELLANEOUS

IC	951	IC	LC75874W
IL	951	Lamp 8V100mA	CEL1530
IL	952	Lamp 8V100mA	CEL1530
LCD	901	LCD	CAW1594

RESISTORS

R	951	1kΩ	CCN1120
R	952	22kΩ	CCN1129
R	953		RS1/10S433J
R	954		RS1/10S472J
R	955		RS1/10S472J
R	956		RS1/10S472J

CAPACITORS

C	951		CKSQYB104K50
C	952		CCSQCH681J50
C	953		CKSQYB104K50
C	954		CKSQYB104K50

=====Circuit Symbol and No.		===Part Name	Part No.

F Unit Number : CWM7101
Unit Name : Keyboard Unit

MISCELLANEOUS

S	901	Encoder	CSD1055
S	902	Encoder	CSD1057
IL	901	Lamp 8V 60mA	CEL1531
IL	902	Lamp 8V 60mA	CEL1531
IL	903	Lamp 8V 60mA	CEL1531
IL	904	Lamp 8V 60mA	CEL1531
IL	905	Lamp 8V 60mA	CEL1531
IL	907	Lamp 8V 60mA	CEL1531
IL	909	Lamp 8V 60mA	CEL1531
IL	910	Lamp 8V 60mA	CEL1531
IL	912	Lamp 8V 60mA	CEL1531
IL	913	Lamp 8V 60mA	CEL1531
IL	914	Lamp 8V 60mA	CEL1531
IL	915	Lamp 8V 60mA	CEL1531

RESISTORS

R	901		RS1/10S3R3J
R	902		RS1/10S3R3J
R	903		RS1/10S3R3J
R	904		RS1/10S3R3J
R	905		RS1/10S3R3J
R	906		RS1/10S3R3J
R	907		RS1/10S1R5J
R	908		RS1/10S2R2J
R	909		RS1/10S1R5J
R	910		RS1/10S2R2J
R	911	0Ω	CCN1110
R	913	0Ω	CCN1110
R	915		RS1/10S0R0J
R	917		RS1/10S0R0J
R	919		RS1/10S0R0J
R	922		RS1/10S0R0J

C Unit Number : EWM1027
Unit Name : Deck Unit

MISCELLANEOUS

IC	251	IC	HA12216F
IC	351	IC	PA2020A
Q	271	Transistor	2SC4116
Q	351	Transistor	2SB1260
Q	352	Transistor	2SC4102
D	351	Diode	1SS355
VR	301	Semi-fixed 33kΩ(B)	CCP1280
VR	302	Semi-fixed 33kΩ(B)	CCP1280

RESISTORS

R	255		RS1/16S181J
R	256		RS1/16S181J
R	257		RS1/16S183J
R	258		RS1/16S183J
R	259		RS1/16S133J
R	260		RS1/16S133J
R	261		RS1/16S274J
R	262		RS1/16S274J
R	271		RS1/16S183J
R	272		RS1/8S0R0J
R	273		RS1/8S0R0J
R	274		RS1/8S0R0J
R	275		RS1/16S473J
R	276		RS1/16S104J
R	277		RS1/16S224J

=====Circuit Symbol and No.		===Part Name	Part No.
R	278		RS1/16S104J
R	281		RS1/8S0R0J
R	282		RS1/8S0R0J
R	283		RS1/8S0R0J
R	284		RS1/8S0R0J
R	285		RS1/16S0R0J
R	288		RS1/16S0R0J
R	289		RS1/16S0R0J
R	291		RS1/8S0R0J
R	292		RS1/10S0R0J
R	293		RS1/10S0R0J
R	294		RS1/10S0R0J
R	321		RS1/8S0R0J
R	351		RS1/16S102J
R	352		RS1/16S102J
R	353		RS1/16S102J
R	354		RS1/16S102J
R	355		RS1/10S274J
R	356		RS1/10S202J
R	357		RS1/10S472J
R	358		RS1/10S103J
R	359		RS1/10S103J
R	360		RS1/10S102J
R	361		RS1/10S622J
R	362		RS1/8S181J
R	373		RS1/8S0R0J
R	374		RS1/8S0R0J
R	375		RS1/8S0R0J
R	401		RS1/16S123J
R	402		RS1/16S332J
R	403		RS1/16S911J
R	404		RS1/16S274J

CAPACITORS

C	251		CKSRYB391K50
C	252		CKSRYB391K50
C	253		CKSRYB391K50
C	254		CKSRYB391K50
C	255		CKSRYB103K50
C	256		CKSRYB103K50
C	271		CEJA1R0M50
C	272		CKSQYB104K16
C	301		CKSQYB104K16
C	302		CKSQYB104K16
C	309		CKSQYB104K16
C	310		CKSQYB104K16
C	351		CKSYB224K25
C	352		CKSQYB392K50
C	353		CKSQYB103K50
C	354		CKSQYB103K50
C	355		CKSYB104K50
C	356		CKSQYB103K50
C	401		CKSRYB472K50
C	402		CKSYB334K25
C	403		CKSRYB223K25
C	404		CKSRYB103K50
C	405		CKSRYB333K16

=====Circuit Symbol and No.		===Part Name	Part No.
D		Unit Number : Unit Name : PCB Unit	
L	1	Inductor	ETH0002
S	1	Switch (LOAD)	ESG1004
S	2	Switch (70µs)	ESG1004
EGN	1	Photo-Interrupter	EGN1005
E		Unit Number : Unit Name : Reel PCB	
EGN	2	Photo-Interrupter	EGN1006
EGN	3	Photo-Interrupter	EGN1006

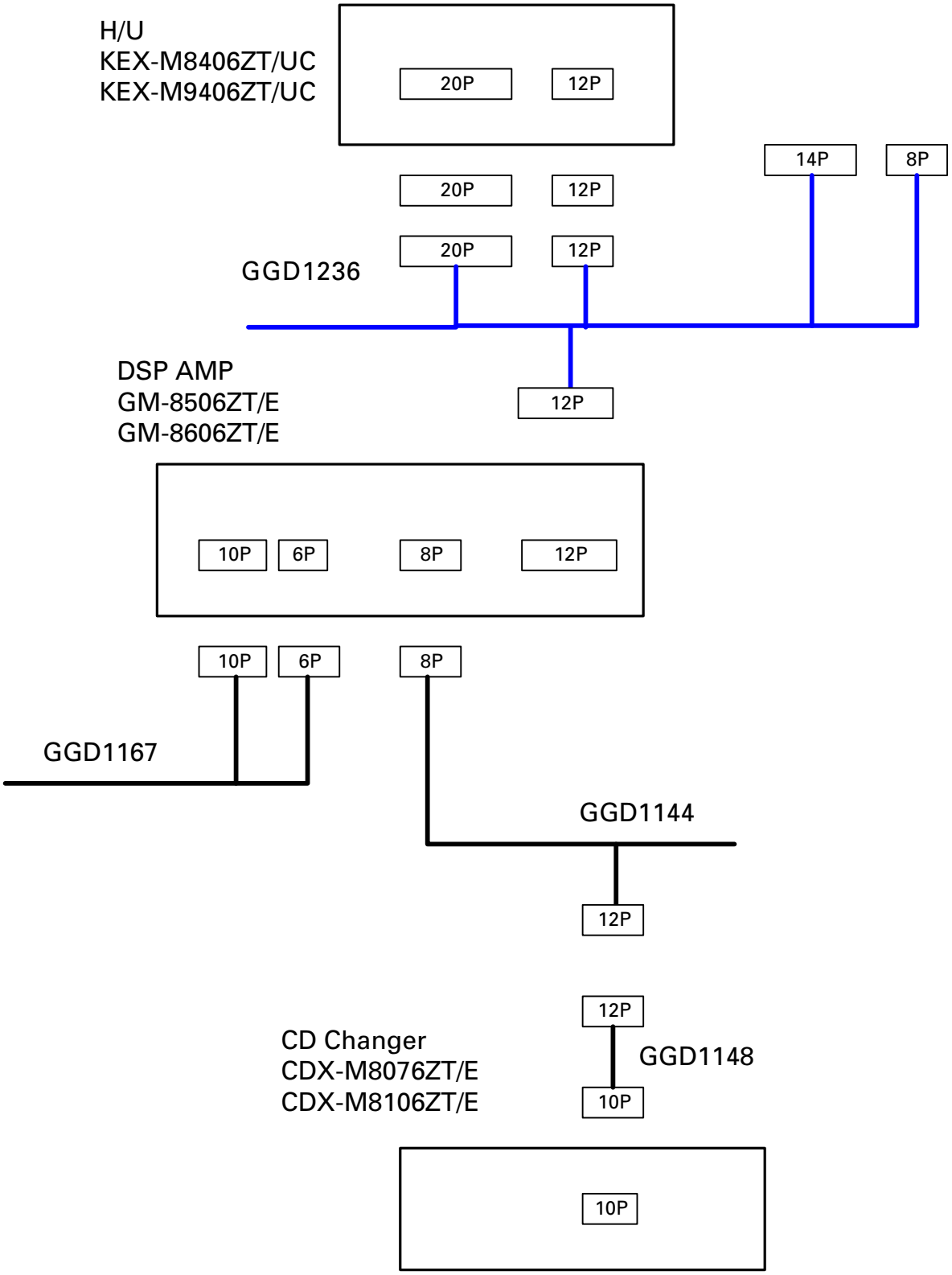
Miscellaneous Parts List

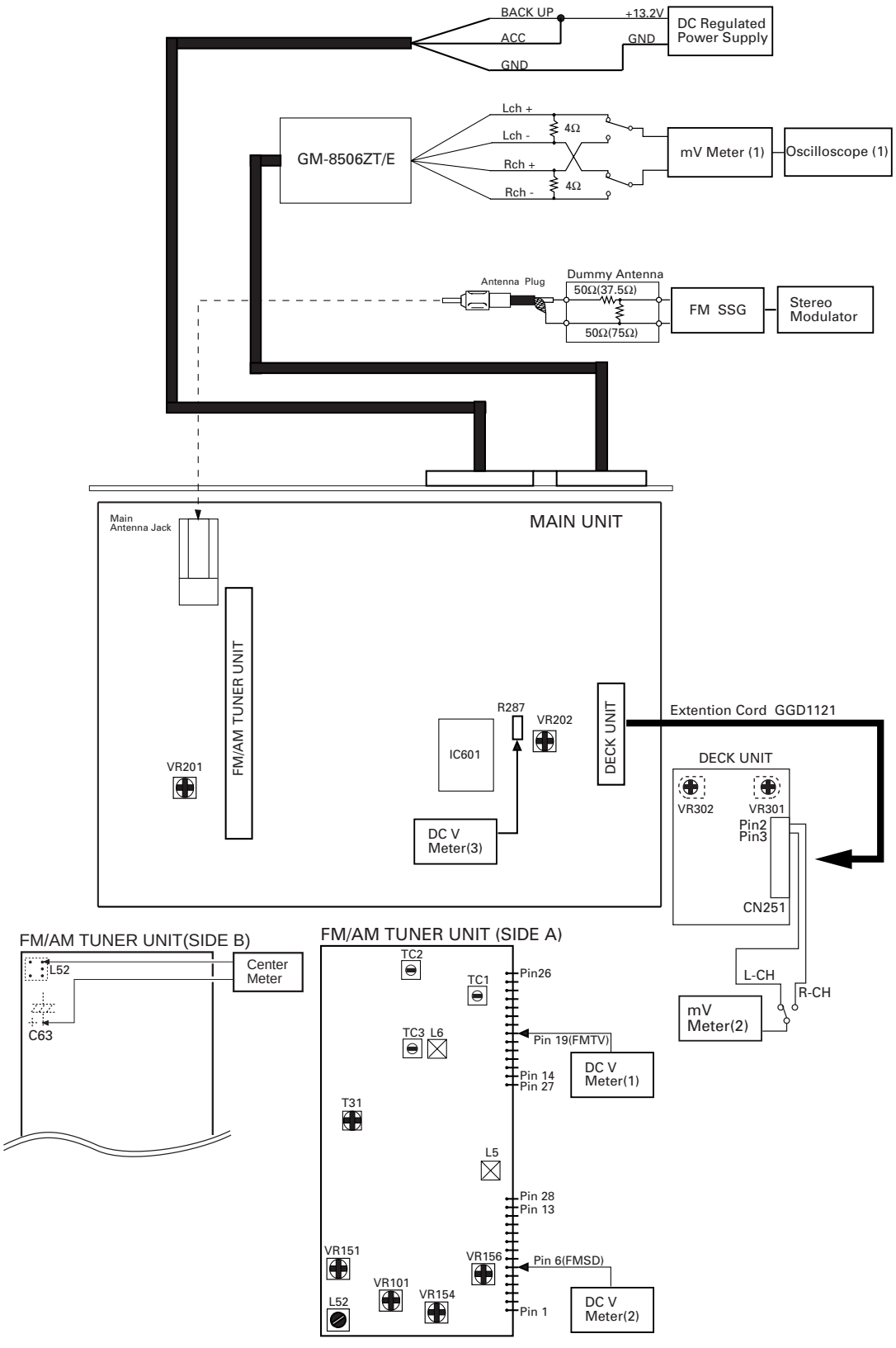
C	1		CEAL4R7M35
M	1	Motor Unit (Main)	EXA1499
M	2	Motor Unit (Sub)	EXA1382
HD	1	Head Assy	EXA1594

6. ADJUSTMENT

6.1 TUNER/AUDIO ADJUSTMENT

● **Connection Diagram**




BACK UP
ACC
GND
+13.2V
GND
DC Regulated Power Supply
GM-8506ZT/E
Lch +
Lch -
Rch +
Rch -
4Ω
4Ω
mV Meter (1)
Oscilloscope (1)
Antenna Plug
Dummy Antenna
50Ω(37.5Ω)
50Ω(75Ω)
FM SSG
Stereo Modulator
MAIN UNIT
Main Antenna Jack
FM/AM TUNER UNIT
VR201
R287
VR202
IC601
DC V Meter(3)
DECK UNIT
Extention Cord GGD1121
DECK UNIT
VR302
VR301
Pin2
Pin3
CN251
L-CH
R-CH
mV Meter(2)
FM/AM TUNER UNIT(SIDE B)
L52
C63
Center Meter
FM/AM TUNER UNIT (SIDE A)
TC2
TC1
TC3
L6
T31
L5
VR151
VR101
VR154
L52
VR156
Pin26
Pin 19(FMTV)
Pin 14
Pin 27
DC V Meter(1)
Pin 28
Pin 13
Pin 6(FMSD)
Pin 1
DC V Meter(2)

FM ADJUSTMENT

Modulation M:MONO MOD., 400Hz 30%(22.5kHz Dev.) or 400Hz 100%(75kHz Dev.)
S1:STEREO MOD., 1kHz, L or R=30%(20.25kHz+7.5kHz Dev.)
S2:STEREO MOD., 1kHz, L or R=60%(40.5kHz+7.5kHz Dev.)

NOTE:Before proceeding to further adjustments after switching power ON, let the tuner run for ten minutes to allow the circuits to stabilize.

	No.	FM SSG		Displayed	Adjustment	Adjustment Method
		Frequency(MHz)	Level(dBf)	Frequency(MHz)	Point	(Switch Position)
TUN Volt	1	•••••	•••••	107.9	L5	DC V Meter(1) : 6V
Center Meter	1	98.1 M	65-85	98.1	L52	Center Meter : 0
IFT	1	98.1 M	5-15	98.1	T31	mV Meter(1) : Maximum
ANT Trimmer	1	98.1 M	5-15	98.1	TC1,TC2	mV Meter(1) : Maximum
RF Coil	1	89.9 M	5-15	89.9	L6	mV Meter(1) : Maximum
RF Trimmer	1	106.1 M	5-15	106.1	TC3	mV Meter(1) : Maximum
Separation	1	98.1 S1	65	98.1	VR101	mV Meter(1) : Maximum
ARC Separation	1	98.1 S1	38	98.1	VR154	mV Meter(1) : Separation 5dB
Interstation	1	98.1 M	65	98.1	---	mV Meter(1) : AdB
Noise	2	98.1 M	-∞	98.1	VR151	mV Meter(1) : A-20dB
Search	1	98.1 M	33	98.1	VR156	DC V Meter(2) : more than 3.5V
Sensitivity	2	98.1 M	32	98.1	VR156	DC V Meter(2) : 0
	3	Repeat steps 1 and 2 until the adjustment standards are satisfied.				

RBDS SL ADJUSTMENT

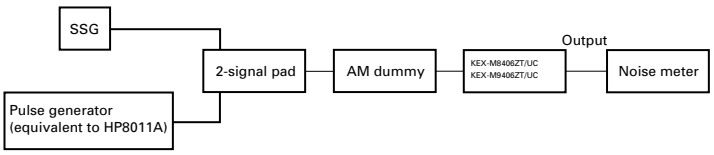
	No.	FM SSG		Displayed	Adjustment	Adjustment Method
		Frequency(MHz)	Level(dBf)	Frequency(MHz)	Point	(Switch Position)
	1	104.0 S2	35	104.0	VR202	DC V Meter(3) : 1.75V±0.05V

DOLBY B NR ADJUSTMENT

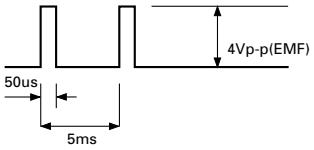
No.	Test Tape	Adjustment Point	Adjustment Method (Switch Position)
1	NCT-150 (400Hz,200nwb/m)	VR301(Lch),VR302(Rch)	mV Meter(2) : -8.24dBm(300mV)±1dB (DOLBY NR Switch : OFF)

AM NOISE CANCELER ADJUSTMENT

Connection:



Setting of the pulse generator (setting of superimposed pulse)

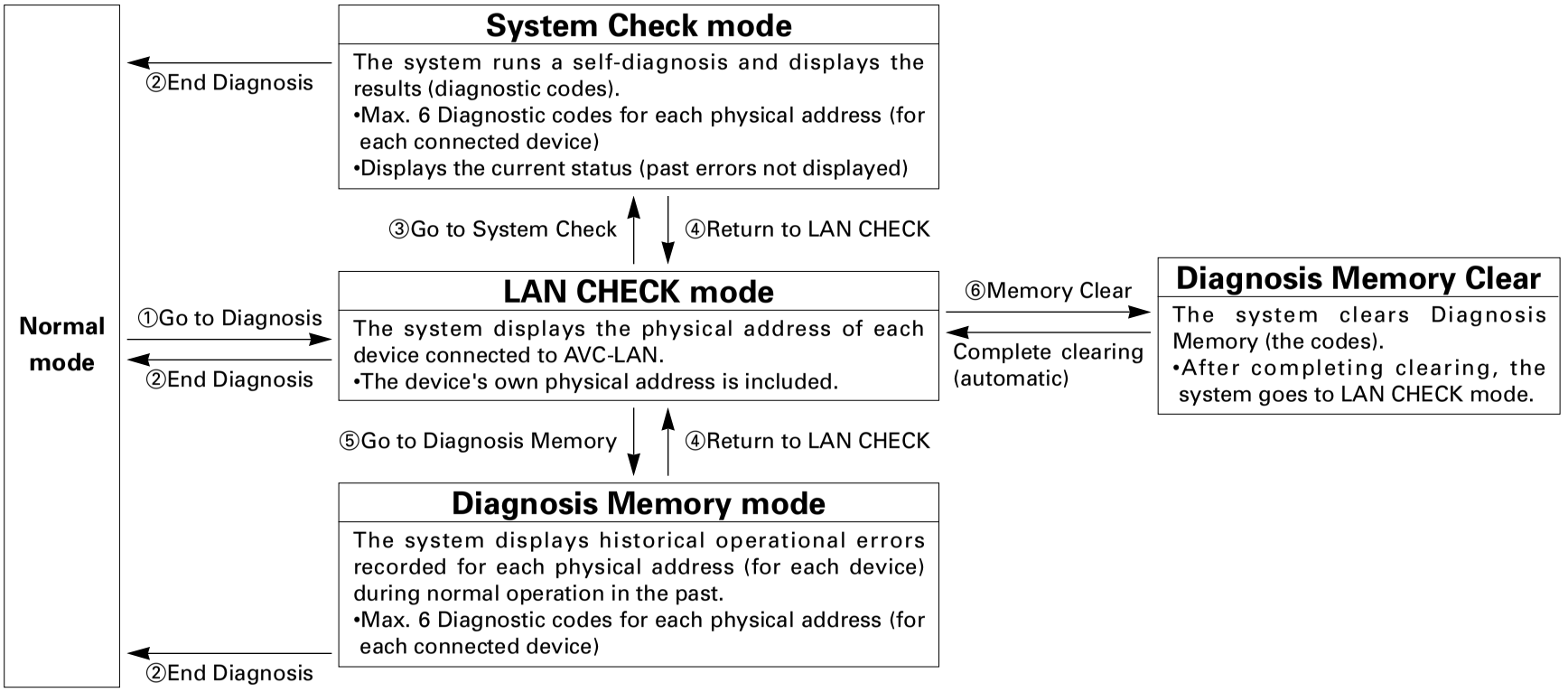


Pulse width :50usec
Pulse intervals :5msec
Pulse voltage :4Vp-p

Adjustment:

1. Setting of SSG
   Receiving frequency : 1000 kHz
   Percentage modulation : 30%
   Modulation frequency : 400 Hz
   Antenna input : 74 dBuV (EMF)
2. Set the system as shown in 1., then tune to a radio station.
3. Superimpose the pulse over signal to set modulation of SSG to OFF.
4. Use a noise meter to monitor output. Adjust VR201 to minimize the noise level.

● **Flowchart and Functions**


Normal mode
System Check mode
The system runs a self-diagnosis and displays the results (diagnostic codes).
•Max. 6 Diagnostic codes for each physical address (for each connected device)
•Displays the current status (past errors not displayed)
②End Diagnosis
③Go to System Check
④Return to LAN CHECK
LAN CHECK mode
The system displays the physical address of each device connected to AVC-LAN.
•The device's own physical address is included.
①Go to Diagnosis
②End Diagnosis
⑥Memory Clear
Complete clearing (automatic)
Diagnosis Memory Clear
The system clears Diagnosis Memory (the codes).
•After completing clearing, the system goes to LAN CHECK mode.
⑤Go to Diagnosis Memory
④Return to LAN CHECK
Diagnosis Memory mode
The system displays historical operational errors recorded for each physical address (for each device) during normal operation in the past.
•Max. 6 Diagnostic codes for each physical address (for each connected device)
②End Diagnosis

● **Operation Specifications**

	KEX-M8406ZT/UC ,M9406ZT/UC
①Go to Diagnosis	Press the DISC key three times, while holding down CH1 or CH6.
②End Diagnosis	DISC key (Press and hold for 1.7 seconds.) ACC OFF/ON
③Go to System Check	CH1
④Return to LAN CHECK	CH6
⑤Go to Diagnosis Memory	CH2
⑥Memory Clear	CH5 (Press and hold for 1.7 seconds.)
•Page up	SEEK⌃
•Page down	SEEK⌄

● Physical Address Assignment

② →

③ ↓

①1	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	M.DISP computer				AV machine	1DIN -TV	EMV		Audio ECU	Audio H/U		Rear seat TV	Rear control SW		CD-CH commander	
8								CD-ROM navigation				Display with SW			MD-CH commander	
1-8 A-F																

①2	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	Navigation computer	ATIS	FM multiple	TV tuner	CD-CH with video											
1-F																

①3	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	Radio		Cassette	Radio/cassette without CH controller	CD-P		CD-CH		MD-P		MD-CH		DAT		DCC	
8																TEL ECU
1-7 9-F																

①4	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	Equalizer				DSP				H. W AMP							
1-F																

①5	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	GPS receiver	ATIS decoder	FM multiplex decoder		CD-CH		MD-CH		CD-ROM -CH		MD-ROM -CH					
1-F																

①6	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	A/C computer								Body computer							
1-F																

Display

1 — ①②③

Serial No. Physical address

Example: 2—190

II

The second device connected is an "audio H/U."

①Device groups

1 : Controllers
2 : Video output devices
3 : Audio output devices
4 : Audio processing devices
5 : Information output devices
6 : Vehicle devices

● Assignment of Diagnostic Codes

① →

② ↓	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	NO ERR	+B error	Micropro-cessor error			Cassette deck error	CD deck or CD-CH error	MD deck or MD-CH error	Amplifier error	EQ error	Switch error	AUDIO ECU error		No response to commu-nications		
1		ACC error	ROM error		AM tuner error	Cassette deck EJT failure	CD, CH EJT failure	MD, CH ←						Commu-nications failure		
2		MUTE error	RAM error		FM tuner error	Tape entan-gled in the cassette deck	Dirt, scar and upside-down in CD, CH	MD, CH ←						No response to periodical communica-tions		
3						Dirt in cassette deck head	Detected P.U tem-perature in CD, CH	MD, CH ←								
4						Broken cassette deck belt	Detected overcur-rent in CD, CH	MD, CH ←						*1		
5					TV tuner error			MD, CH recording function error								
6																
7							CH tray error									
8							CH elevator error	CH ←	DSP error	LCD error	Antenna error					
9							CD, CH clamp error	MD, CH ←			Main antenna error					
A											Sub antenna error					
B											TV antenna error					
C											Antenna selector error					
D/E																
F																No response to Diagnosis

Common Diagnostic code among devices

Diagnostic code specific to a particular device

Diagnostic code for communications

Display

1 — ①②

Serial No. Diagnostic code

Example: 3—D2

II

The third content of Diagnosis is "No response to periodical communications."

NOTES:

*1 Instruction to check for an error in periodical communications is interrupted.

● Items corresponding each model

<During Diagnosis Memory mode>

- KEX-M8406ZT/UC,M9406ZT/UC D1, D2, FF, 50

<During System Check mode>

- KEX-M8406ZT/UC,M9406ZT/UC

No Diagnostic code assigned 00

● Go to Diagnosis (Beep and Display)

	LAN-CHECK mode	System Check mode	Diagnosis Memory mode
Beep	• The system beeps three times when starting up Diagnosis.	• The system beeps three times when changing to another mode. • The system beeps once every time a physical address is displayed.	• The system beeps three times when changing to another mode. • The system beeps once every time a physical address is displayed.
Display	• The system displays the physical address of each device connected to AVC-LAN in sequence from the lowest address. Example: 1 — 1E0 Serial No. Physical address (CD commander)	• When changing to another mode Blinking "SYS" is displayed. • After completing System Check Displays a physical address. ••Identifies the device. Example: H 150 Physical address (1DIN-TV) Distinguishes from LAN-CHECK. Displays a Diagnostic code. ••Identifies the type of error. Example: 1 — d2 Serial No. Diagnostic code (no response to periodical communications) Max. 6 for each physical address Displays an auxiliary code ••Identifies the device involved in the error. Example: 1 — 360 Serial No. Physical address (CD-CH) 1DIN-TV has recorded an error indicating there is no response to periodical communications in CD-CH. 1 — ——— When there is no physical address: Displays a physical address. The next lowest physical address • When there is no Diagnostic code after completion of System Check _____ 00 The system changes as shown above, as this unit does not include System Check.	• When changing to another mode Blinking "CODE" is displayed. • Then, "Latest periodical communications number" is displayed. ••Elapsed time at the current point is displayed. Example: _____ 1F Elapsed time (31 minutes) • The system displays a number from 00 to FF (increases a digit every minute). • When 256 minutes are reached, the system returns to 00. • Displays the details of Diagnosis. Displays a physical address. (Same as the left.) Displays a periodical communications number. ••Displays the time when the error occurred. Example: 1 — 02 Serial No. Elapsed time (2 minutes) Displays Diagnostic code. (Same as the left.) Displays an auxiliary code. (Same as the left.) Displays a physical address. • When there is no Diagnostic data: _____ 00

7.1.2 DISASSEMBLY

● **Removing the Case (not shown)**

1. Remove the six screws.
2. Remove the case.

● **Removing the Grille Assy (Fig.1)**

1 Remove the two screws and then remove the Grille Assy.

● **Removing the Holder (Fig.1)**

2 Remove the four screws and then remove the Holder.

● **Removing the Cassette Mechanism Module (not shown)**

1. Remove the four screws.
2. Remove the Cassette Mechanism Module.

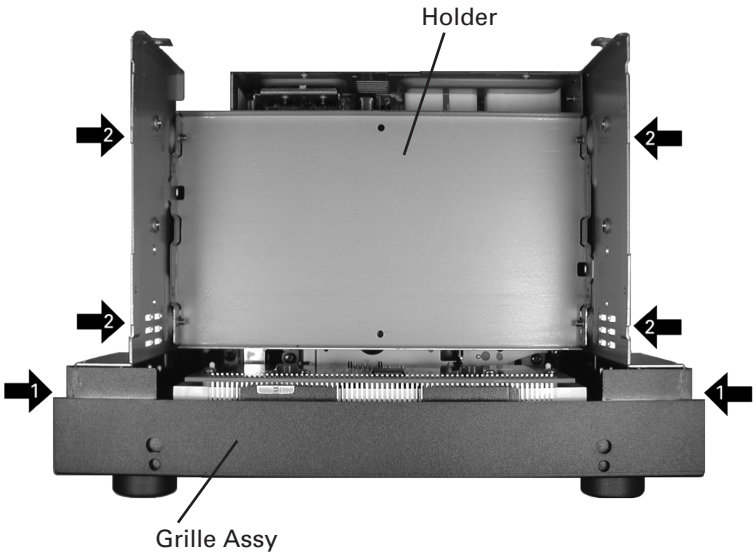


Fig.1

● **Removing the Main Unit (Fig.2)**

1 Remove the two screws.

2 Straight the tabs at two locations indicated.

3 Remove the two screws and then remove the Main Unit.

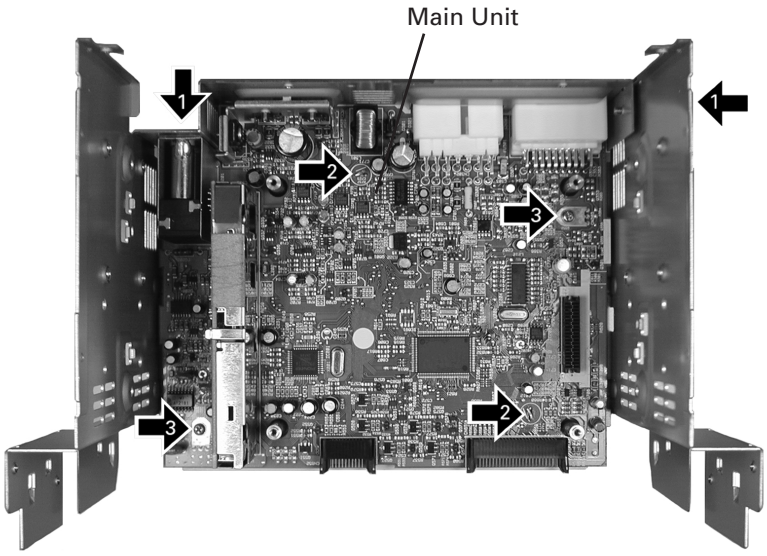
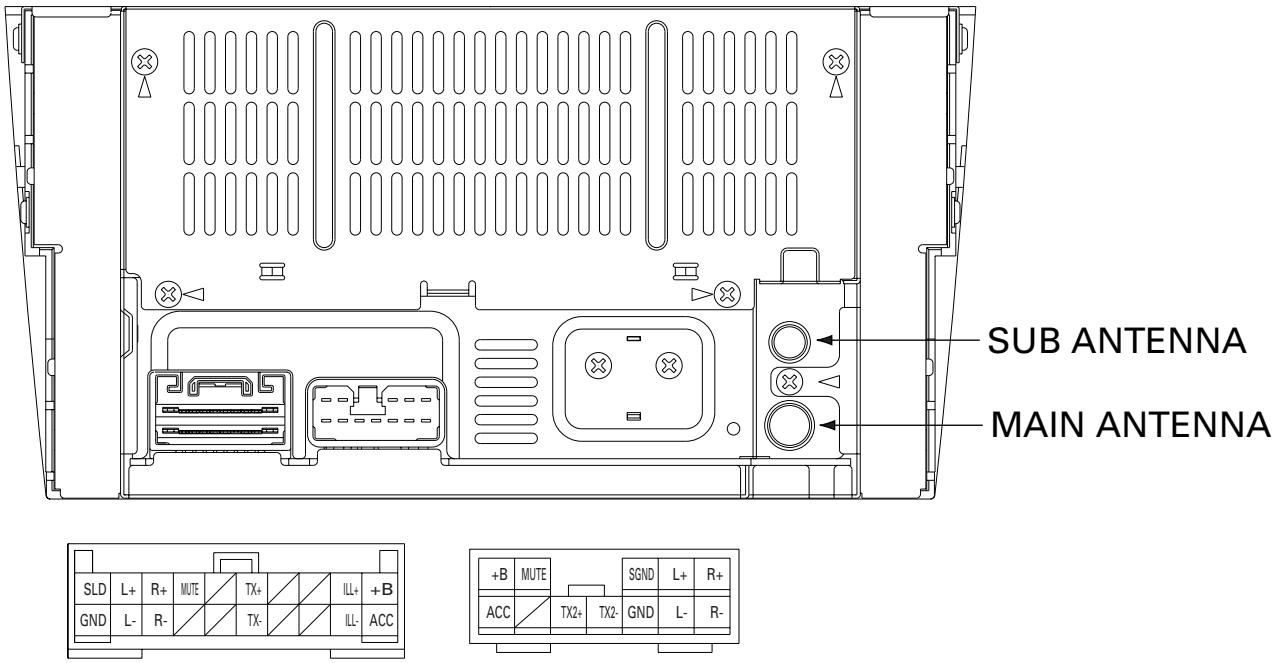
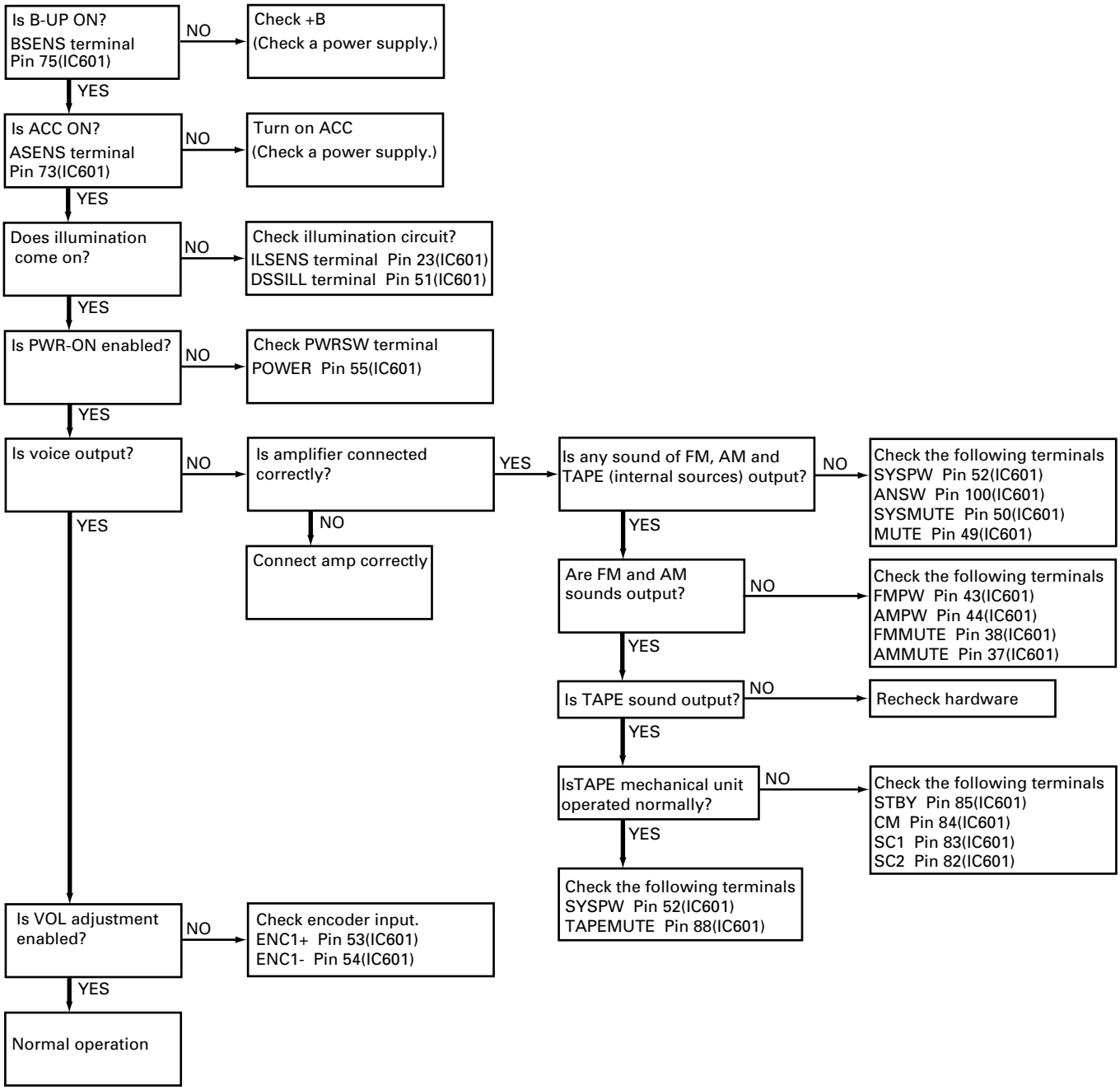


Fig.2

7.1.3 CONNECTOR FUNCTION DESCRIPTION



7.1.4 TROUBLESHOOTING



7.2 PARTS

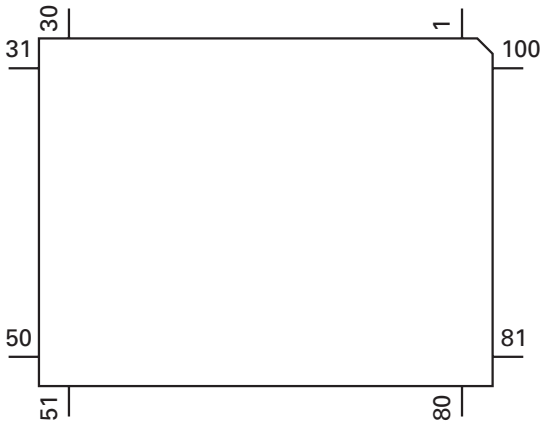
7.2.1 IC

● **Pin Functions (PD5579A)**

Pin No.	Pin Name	I/O	Function and Operation
1	MUTESENS		Not used
2	$\overline{\text{LINH}}$	O	Inhibit output for LCD driver
3	LCE	O	Chip enable output pin for LCD driver
4	ILL		Not used
5	LDO	O	LCD driver data output
6	NC		Not used
7	LCK	O	Clock output for LCD driver
8	BYTE		Connect to GND
9	CNVSS		Connect to GND
10	XCIN		Not used
11	XCOUT		Not used
12	$\overline{\text{RESET}}$	I	Reset input
13	XOUT	O	X'tal terminal
14	VSS		GND
15	XIN	I	X'tal terminal
16	VDD		Power supply
17	$\overline{\text{NMI}}$		Connect to VDD
18	$\overline{\text{RCK}}$	I	RDS clock input
19	$\overline{\text{LDET}}$	I	PLL lock sense input
20	NC		Not used
21	RX2	I	BUS data input
22	IPPW	O	BUS driver power supply output
23	$\overline{\text{ILSENS}}$	I	Illumination sense input
24	$\overline{\text{DRST}}$	O	Reset output
25	57K	I	57kHzBP-OUT sense input
26	$\overline{\text{CURRQ}}$	O	Current request
27	$\overline{\text{SK}}$	I	SK signal input
28	$\overline{\text{RDSLK}}$	I	RDS LK signal input
29	RX1	I	BUS data input
30	TX	O	BUS data output
31	PDO	O	Data output for PLL IC
32	PDI	I	Data input from PLL IC
33	PCK	O	PLL clock output
34	PCE	O	Chip enable output for PLL IC
35	ECE		Not used
36	RDSMUTE	O	RDS mute
37	AMMUTE	O	AM mute output
38	FMMUTE	O	FM mute output
39	$\overline{\text{BLPW}}$	O	Back Light ON/OFF
40	MODSENS	I	Modulation sense
41	EPM		Not used
42	RDT	I	RDS demodulation data input
43	FMPW	O	FM power output
44	AMPW	O	AM power output
45	$\overline{\text{SWVDD}}$	O	Grille power supply control output
46	CE		Not used
47	ANTB	O	Antenna control B
48	ANTA	O	Antenna control A
49	MUTE	O	BUS mute output
50	$\overline{\text{SYSMUT}}$	O	System mute
51	$\overline{\text{DSSILL}}$	O	DSS illumination output
52	$\overline{\text{SYSPW}}$	O	System power control output
53	ENC1+	I	VOL encoder (+) input
54	ENC1-	I	VOL encoder (-) input
55	$\overline{\text{POWER}}$	I	POWER key input
56-61	KST5-0	O	Key strobe output

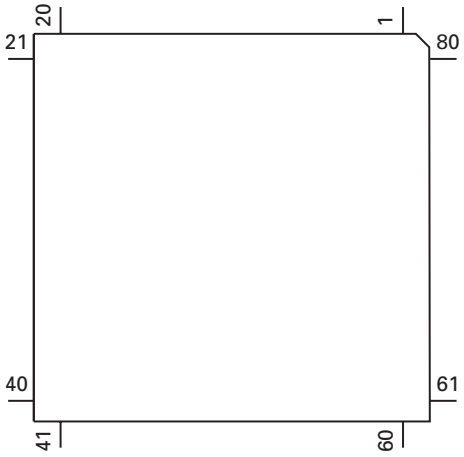
Pin No.	Pin Name	I/O	Function and Operation
62	VCC		Power supply
63	NC		Not used
64	VSS		Connect to GND
65-68	KD3-0	I	Key data input
69	MS	I	Cassette mechanism MS sense input
70	$\overline{FR}$	O	Head forward/reverse select output
71	PLAY	O	MS gain select output
72	$\overline{MTL}$	I	Cassette mechanism tape detect input
73	$\overline{ASENS}$	I	ACC power sense input
74	$\overline{CSEJ}$	I	Cassette eject sense input
75	$\overline{BSENS}$	I	Back up power sense input
76	NR	O	Dolby NR ON/OFF select output
77	$\overline{CSLOAD}$	I	Tape loading detect input
78	POS	I	Position sense
79	RES	I	Cassette mechanism reverse end sense input
80	NES	I	Cassette mechanism forward end sense input
81	TEST	I	Test terminal
82	SC2	O	Cassette mechanism sub motor control output
83	SC1	O	Cassette mechanism sub motor control output
84	CM	O	Cassette mechanism capstan motor control output
85	$\overline{STBY}$	I	Stand-by input terminal
86	ENC2-	I	AUD encoder (-) input
87	ENC2+	I	AUD encoder (+) input
88	TAPEMUTE	O	TAPE mute output
89	ST	I	Stereo
90	FMSD	I	FM SD input
91	NL		RDS noise level
92	CL	I	RDS tune off sense input
93	RDSL		RDS signal level
94	ILL-		Not used
95	SL	I	Signal level input
96	AVSS		Connect to GND
97	NC		Not used
98	VREF		Connect to VDD
99	AVCC		Connect to VDD
100	ANSW	O	Analog SW

*PD5579A



IC's marked by* are MOS type.
Be careful in handling them because they are very liable to be damaged by electrostatic induction.

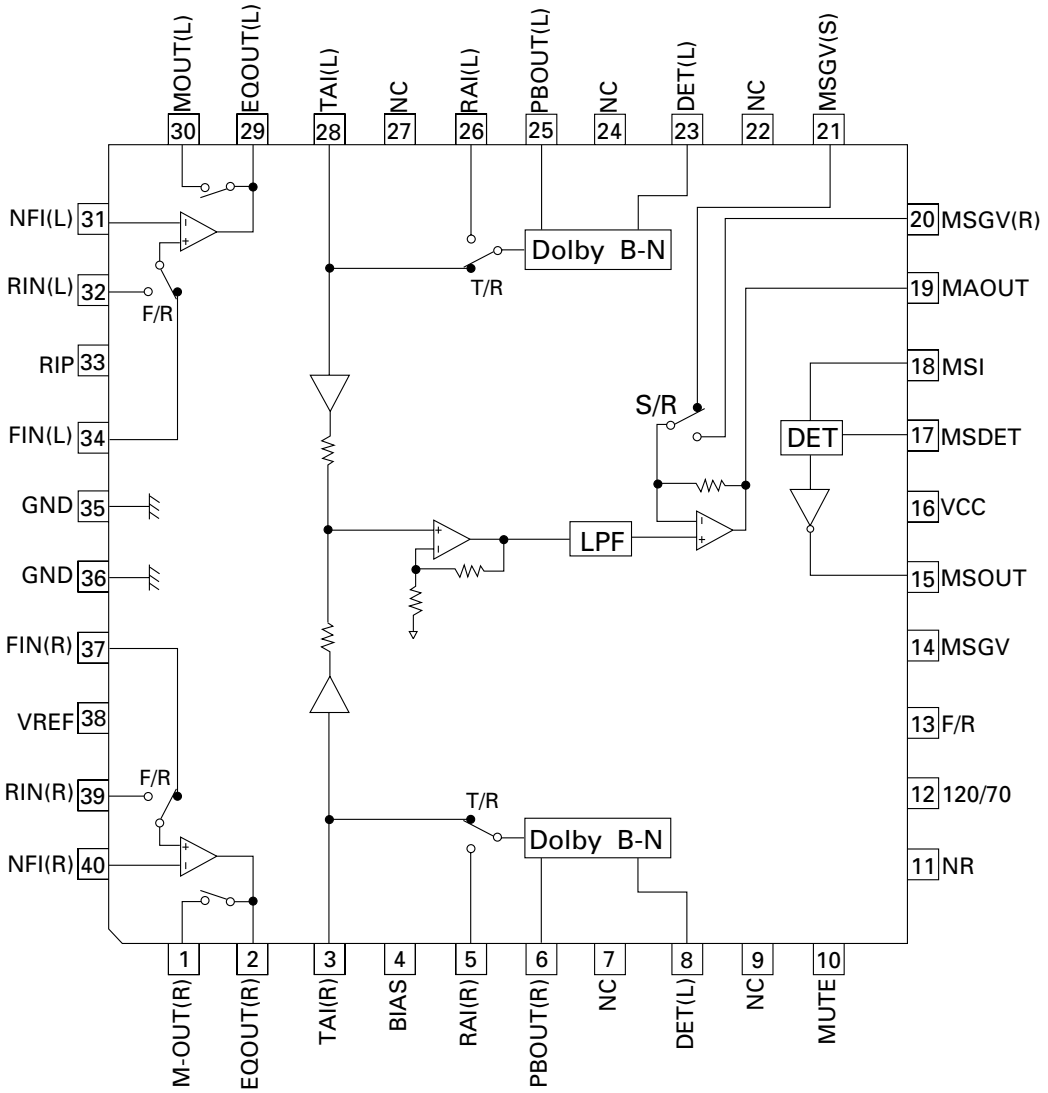
LC75874W



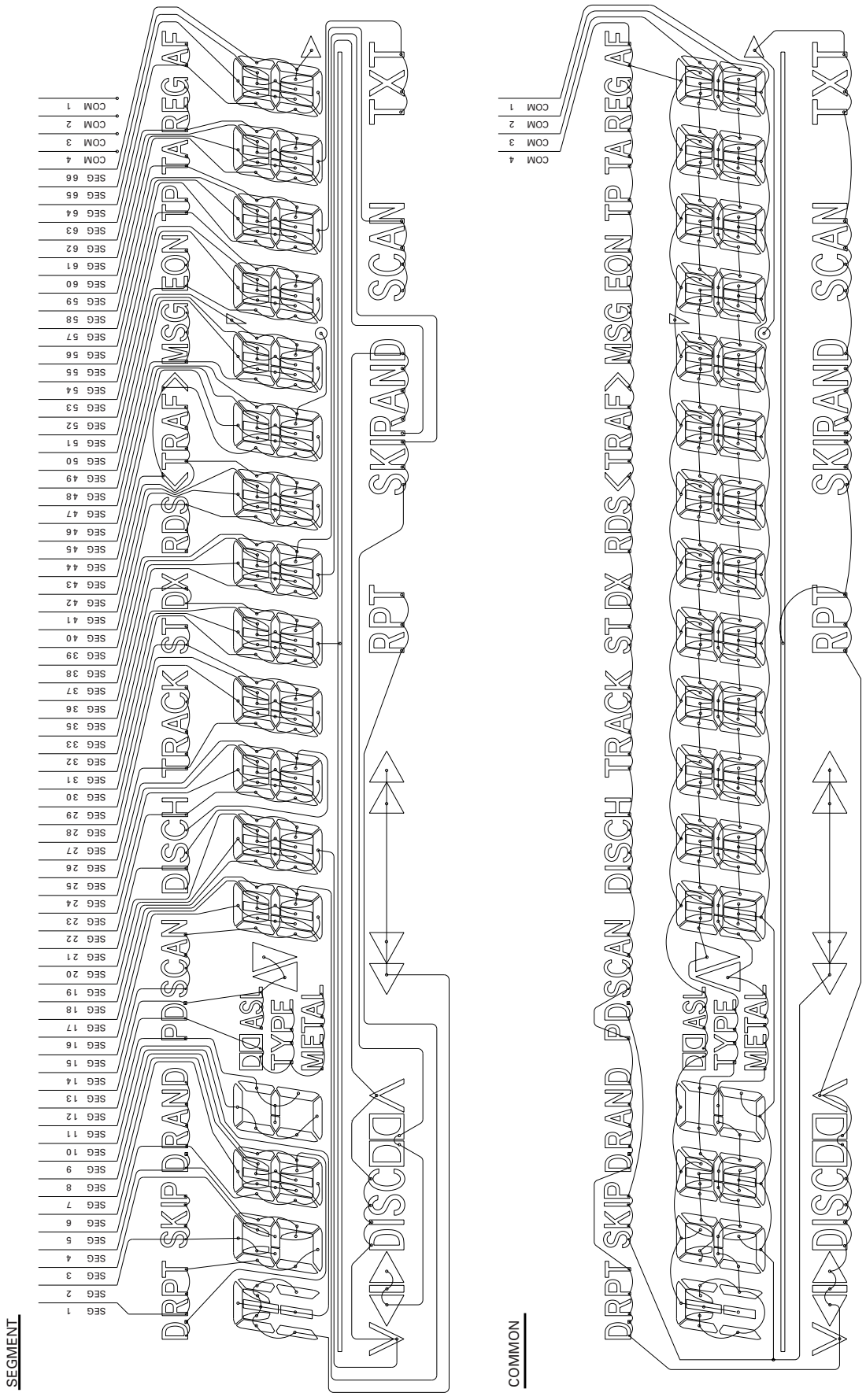
● **Pin Functions (LC75874W)**

Pin No.	Pin Name	I/O	Function and Operation
1–64	SE3-66	O	LCD segment signal output
65–68	CO1-CO4	O	LCD common signal output
69	VDD		Power supply
70	VLCD		LCD Power supply
71	VLCD1		LCD bias power supply
72	VLCD2		LCD bias power supply
73	VSS		GND
74	OSC	I/O	
75	$\overline{\text{LINH}}$	I	Inhibit input from IC901
76	CE	I	Chip enable output pin for LCD driver
77	CL	I	Clock output for LCD driver
78	DI	I	Data output for LCD driver
79,80	SE1,SE2	O	LCD segment signal

HA12216F



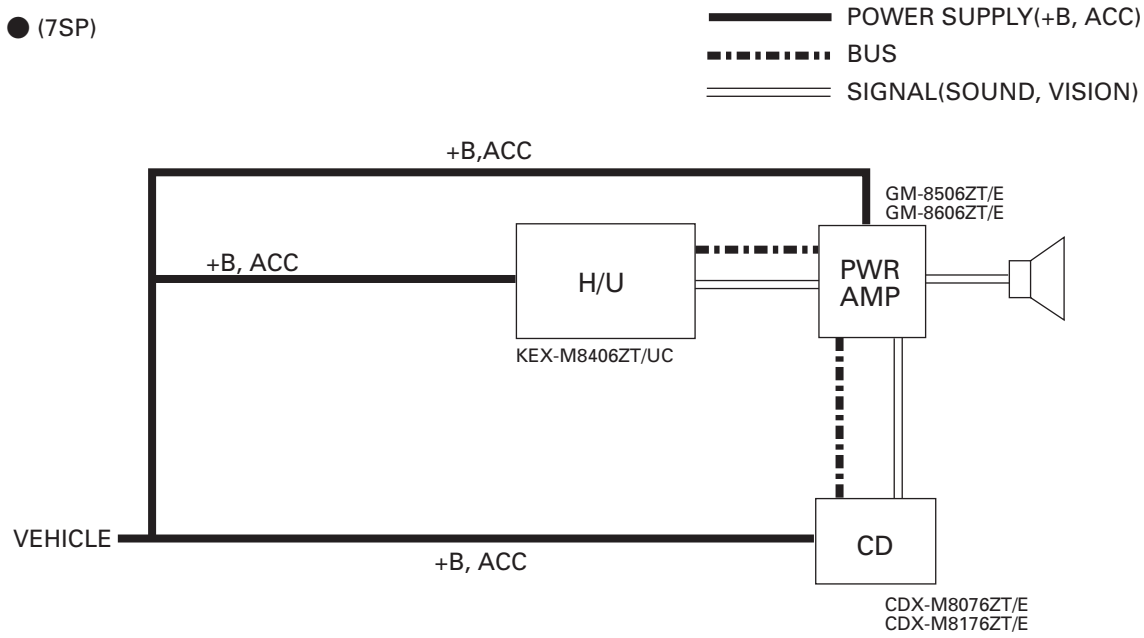
7.2.2 DISPLAY


SEGMENT
COM 1
COM 2
COM 3
COM 4
SEG 66
SEG 65
SEG 64
SEG 63
SEG 62
SEG 61
SEG 60
SEG 59
SEG 58
SEG 57
SEG 56
SEG 55
SEG 54
SEG 53
SEG 52
SEG 51
SEG 50
SEG 49
SEG 48
SEG 47
SEG 46
SEG 45
SEG 44
SEG 43
SEG 42
SEG 41
SEG 40
SEG 39
SEG 38
SEG 37
SEG 36
SEG 35
SEG 33
SEG 32
SEG 31
SEG 30
SEG 29
SEG 28
SEG 27
SEG 26
SEG 25
SEG 24
SEG 23
SEG 22
SEG 21
SEG 20
SEG 19
SEG 18
SEG 17
SEG 16
SEG 15
SEG 14
SEG 13
SEG 12
SEG 11
SEG 10
SEG 9
SEG 8
SEG 7
SEG 6
SEG 5
SEG 4
SEG 3
SEG 2
SEG 1
DRPT SKIP DRAND PDSCAN DISCH TRACK ST DX RDS TRAF MSG EON TP TA REG AF
DOLBY TYPE METAL
RPT SKIP RAND SCAN TXT
DISC
COMMON
COM 1
COM 2
COM 3
COM 4
DRPT SKIP DRAND PDSCAN DISCH TRACK ST DX RDS TRAF MSG EON TP TA REG AF
DOLBY TYPE METAL
RPT SKIP RAND SCAN TXT
DISC

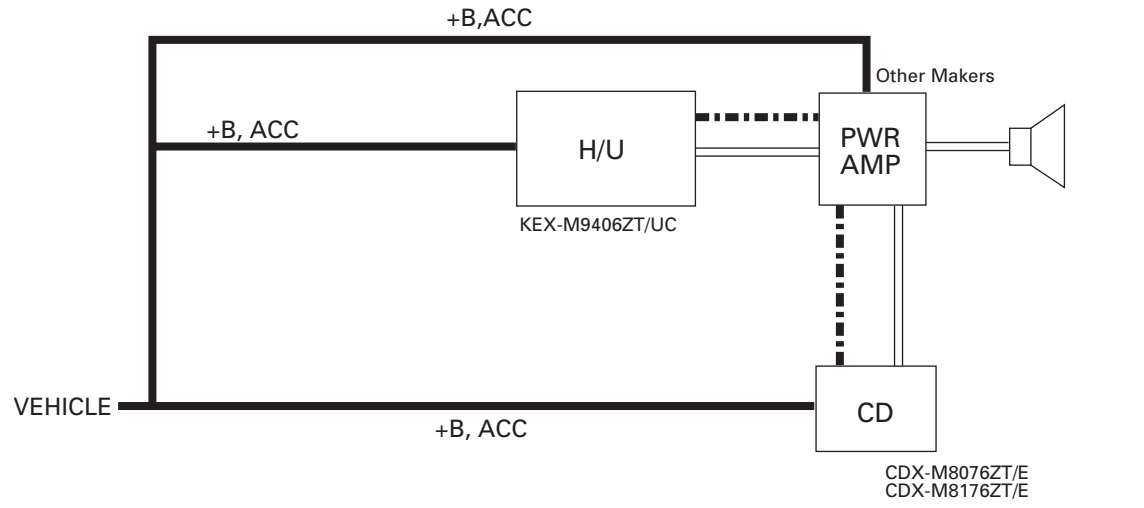
7.3 EXPLANATION

7.3.1 SYSTEM BLOCK DIAGRAM

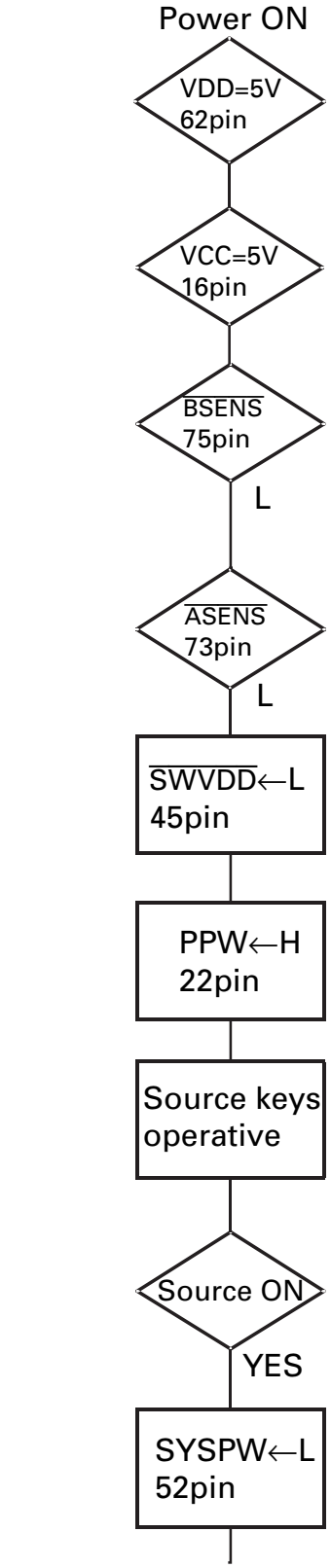
● (7SP)



● (8SP)



7.3.2 OPERATIONAL FLOW CHART

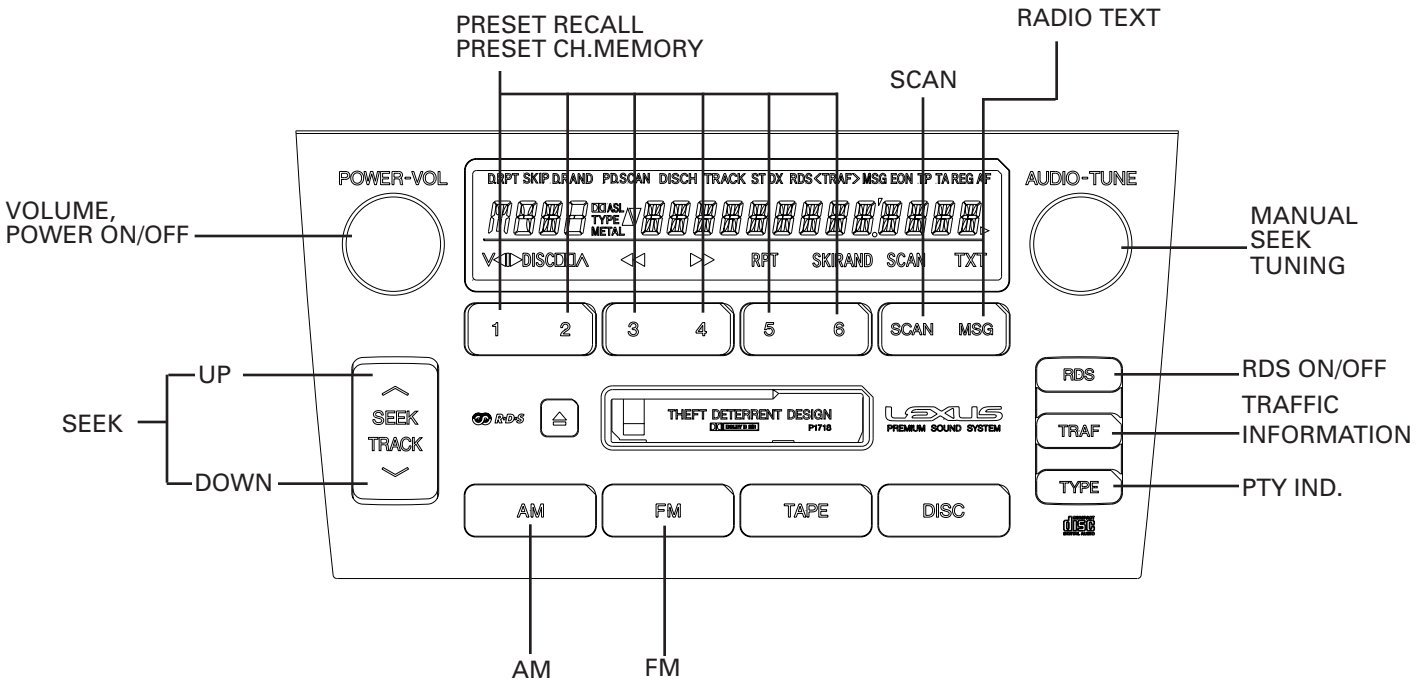


Completes power-on operation.
(After that, proceed to each source operation.)

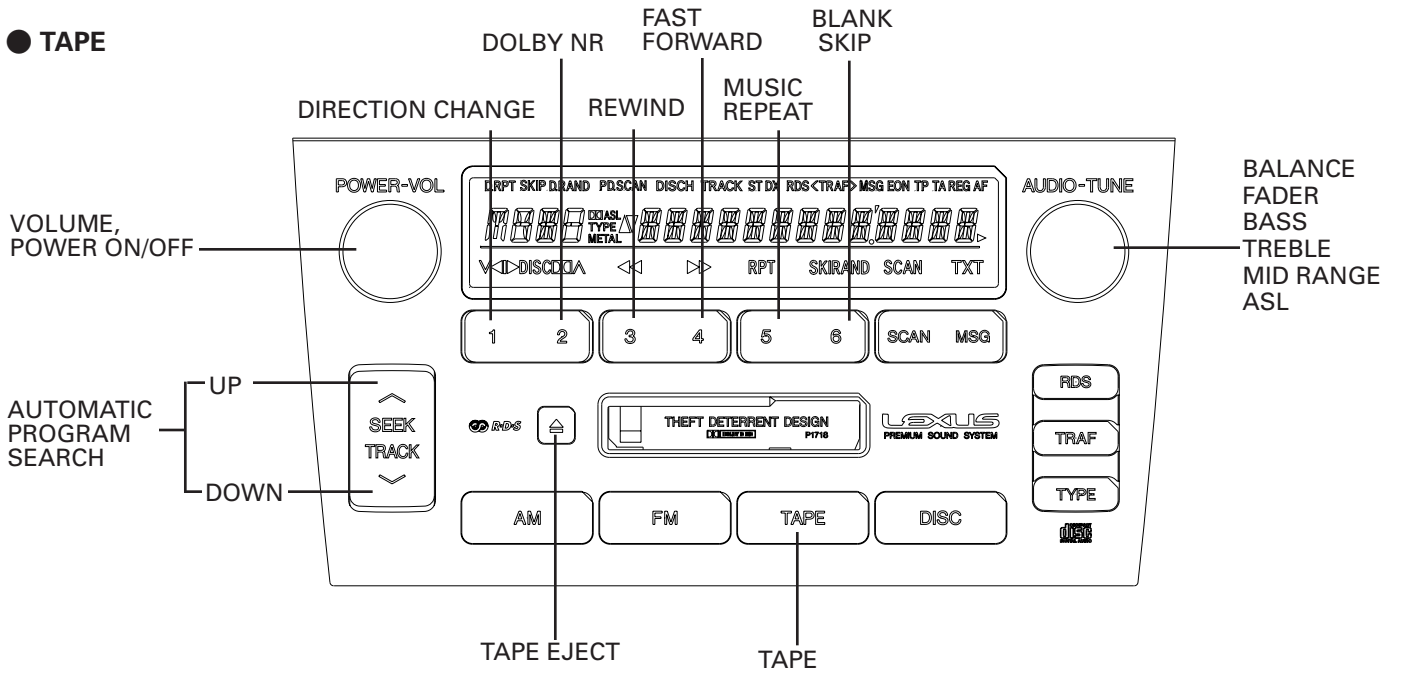
8. OPERATIONS AND SPECIFICATIONS

8.1 OPERATIONS

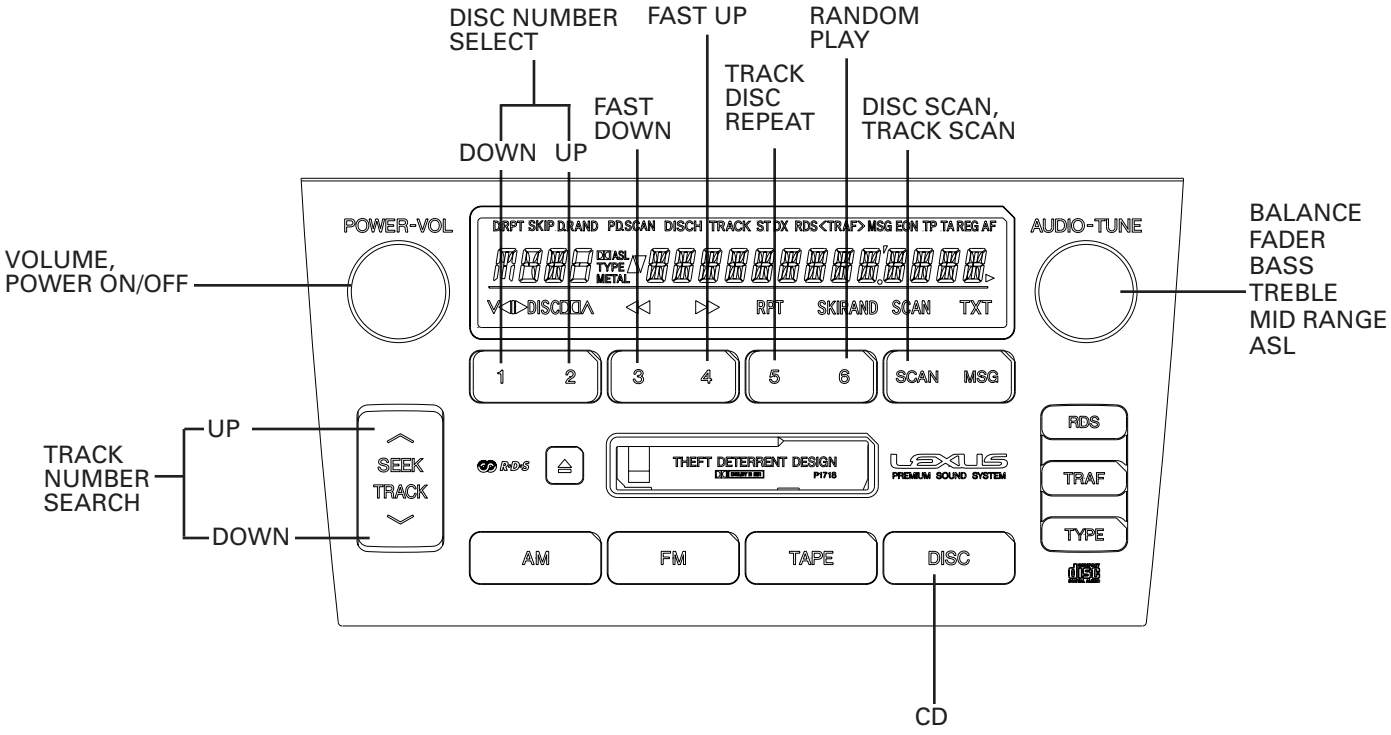
● **RADIO**



● **TAPE**



● **CD**



8.2 SPECIFICATIONS

General

Power source..... 13.2 V(10.5V—16.0V allowable)
Electrode dark current ..... less than 1 mA
Grounding system..... Negative type
Weight ..... 1.64 kg

Tape player

Tape..... Compact cassette tape (C-30—C-90)
Tape speed ..... 4.76 cm/sec.(+0.14 cm/sec.,-0.05 cm/sec.)
Wow & flutter ..... less than 0.2 %(WRMS)
Fast forward/rewind time ..... less than 120 sec. for C-60
Stereo separation..... more than 30 dB
Signal-to-noise ratio ..... more than 40 dB

FM tuner

Frequency range..... 87.7 — 107.9 MHz
Usable sensitivity ..... 7 dBμ ± 6dB (S/N: 30 dB)
Signal-to-noise ratio..... more than 48 dB(stereo)
Distortion ..... less than 1.5%
Stereo separation ..... more than 25 dB (35 ±10dB, 1 kHz)

AM tuner

Frequency range ..... 530 — 1,710 kHz
Usable sensitivity ..... 28 dBμ± 5dB (S/N: 20 dB)
Selectivity..... more than 50 dB (±10 kHz)
Signal-to-noise ratio..... more than 44 dB(74dBμ)
Distortion..... less than 1.0% (74dBμ)

PIONEER CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS SERVICE INC. P.O.Box 1760, Long Beach, CA 90801-1760 U.S.A.
PIONEER EUROPE NV Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE.LTD. 253 Alexandra Road, #04-01, Singapore 159936

© **PIONEER CORPORATION 2000**

K-ZZS. JULY 2000 Printed in Japan